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ABSTRACT

This issue of Impact, a bi-monthly magazine produced by the ERIC Center at The University of Michigan, examines a variety of viewpoints, issues and explorations about out future world. Included is a speech by B.F. Skinner, a presentation on the future and its impact on life/career planning, a curriculum plan for a course in futuristics, and Impact's own look at the future. (LKP)

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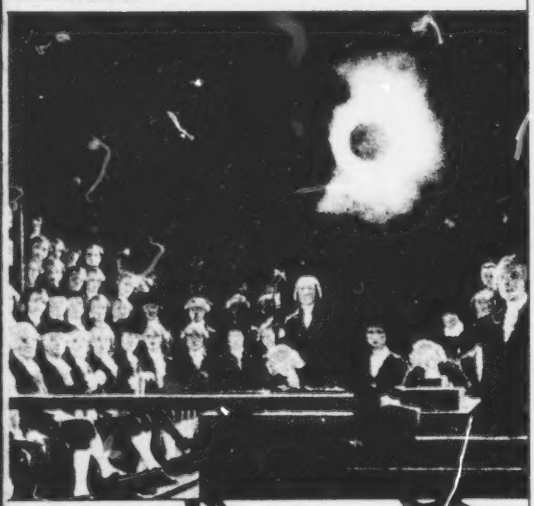

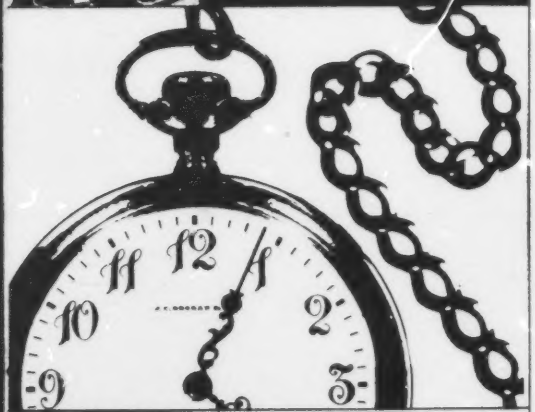

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Director and Editor-in-Chief, Garry R. Walz
Professional Editor, Susan F. Kersch
Contributors: Gail Briskey, Deborah Brouwer, Mary Joyce Church, Sherry Davidson, Carol Jaslow, Nancy Moncrieff, Wendy Suss Kadushian
Production Editor, Barbara Hobbie
Designer, Bill Howison
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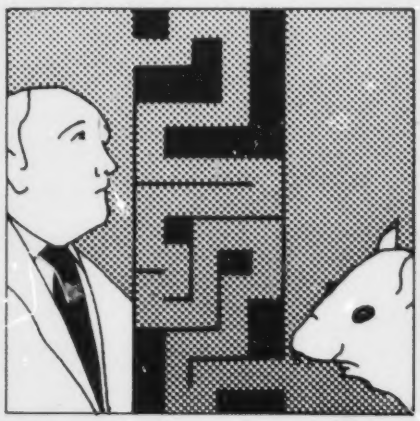
About This Issue

The Maze in the Mouse

A number of years ago E. B. White wrote a very short story about a mouse in a maze. The little fellow wound his way in and out, running into barricades, backtracking and rewinding until he came to the end. But to his chagrin the exit was blocked by a glass partition. Futiley he banged into the glass again and again. But finally he gave up and settled for a glassy-eyed stupor. White's moral to this parable was that a human in the same situation would keep on banging his head into the glass, for not even experience would teach this thinking creature that he could be beaten by the maze.

Whether you agree that humans are foolhardy or not, it is this quality of "Yankee Ingenuity," "old college try," "never say die," that has swept or blundered humanity into succeeding centuries always looking toward the future, looking for a way to beat the maze. Often people have erred—they have polluted, maimed, devalued and undervalued humanity and the environment. They have triumphed—over many diseases, hunger, depersonalization, literacy. But today the view is predominantly pessimistic and at bedtime people count more minuses than sheep.

This desire to project ourselves through or beyond the barrier of human frailty or inhumanity, this fear that the barrier may be up to stay, has led to a new emphasis on plans for the future, speculations about the future and the development of entire curriculums and techniques for the systematic study of the future. Today we are studying the neuron pathways and genetic chains of the mouse to find clues to the regenerative processes locked in the physiology and psyche. We are winding through paths hitherto thought of as unthinkable. We are thinking, consciously, like a futuristic race.



Although there is still a great deal of emphasis on technological solutions, there is obvious concern for the codevelopment of humanistic services and creative outlets. As C. P. Snow noted in his essay, "Two Cultures," science and the humanities have yet to merge, to interact faithfully and in harmony. The social and physical sciences reserve skepticism for one another. But recently perceived crises—tangibly felt energy shortages, significant increases in homicide and urban racial disparity, soaring inflation and unemployment or more aptly misemployment— have had the effect of softening the hard lines separating many disciplines. Theoreticians are more open to actual personal involvement; practitioners are gaining interest in the *why* behind human actions.

It is with this spirit of futuristic cooperation in mind that we present an issue on The Future. We have gathered together a variety of materials from divergent sources in an attempt to view the future from many facets. One article suggests a curriculum for the study of the future, another views the future of career development and the role of the helping professional, others postulate possible events, another explains actual techniques used for postulating. Our major presentation is a symposium by B. F. Skinner and two psychologists from the University of Michigan who focus not so much on the nature of the future but on the question, "Are We Free to Have a Future?" It seems, come round at last, we are still banging our heads against the same old question.

To the Future!

Garry & Susan

Quotes

"Acceptable" behavior is either forced onto individuals or indirectly induced in them through bribes—the token economy of behavior modification.

Bruno Bettelheim
Ibid

What rational people fail to understand is that their systems require faith, too—faith in the intellect and the rational process.

Andrew Weil
The Natural Mind

R. Buckminster Fuller predicts that by the twenty-first century women will have taken over management of Spaceship Earth, including, no doubt, all the Fuller-inspired contraptions that by then will have accumulated in it. It is hard to imagine a safer prediction: first, it was made in *McCall's*, where it wasn't likely to be objected to; second, the predictor, being well into his seventies, can't possibly be held to account if his prediction proves wrong. But if women have this natural capacity to resist turning people into objects, it is a capacity that is vigorously opposed by powerful forces in the magazines they read.

J. P. Sisk
Harper's
November, 1973

The grimmest demon of our day—the demand for conformity set up by the frightened men, the unfree men, the men George Orwell said would triumph by 1984.

Philip Wylie

We are given to boasting of our age being an age of Science! And if we are thinking merely of the dawn compared to the darkness that went before, up to a point we are justified. Something enormous has been born in the universe with our discoveries. . . Yet though we may exalt research and derive enormous benefit from it, with what pettiness of spirit, poverty of means and general haphazardness do we pursue truth in the world today! Have we ever given serious thought to the predicament we are in?

Pierre Teilhard de Chardin
The Phenomeon of Man

Facts are a very inferior form of fiction.

Virginia Woolf
How Should One Read A Book? (Essay)

Life is suffering. Birth involves death. Transitoriness is the fate of existence. No civilization has yet been permanent, no longing completely fulfilled. This is necessity, the fatedness of history, the dilemma of mortality.

Passage from
Henry Kissinger's
Harvard thesis

The world is only a feeling.

Carlos Castaneda
Harpers,
February, 1973

Had anyone in the 1930's been told that the U.S. Gross National Product in the early 1970's would surpass a trillion dollars—effectively *doubling* the real per capita income within the life-span of the majority of the population then alive—I am sure he would have felt safe in predicting for the United States an era of unprecedented social peace and goodwill. Yet that enormous economic change has taken place and social harmony has not resulted. Nor have Sweden or England or the Netherlands—all countries in which real living standards have vastly improved and in which special efforts have been made to lessen the economic and social distance between classes—been spared profound social discontents.

Robert L. Heilbroner
World Magazine
September, 1972

To be able to fill leisure intelligently is the last product of civilization

Bertrand Russell
The Conquest of Happiness,
1930

If America learns something about grace and mercy, perhaps I will be blessed to enjoy my grandchildren. This can happen only if, just as we have touched the inner realms of space, we seek the inner space of mankind. We do not need a power change, though that would be better than the situation we have: we need a change in the way we conceive of power.

Nikki Giovanni
Saturday Review of Education
March, 1973

You who choose to lead must follow,
But if you fall, you fall alone.
If you should stand, then who's to guide you?
If I knew the way, I would take you home.

"Ripple"
The Grateful Dead

Mere purposive rationality unaided by such phenomena as art, religion, dreams, and the like, is necessarily pathogenic and destructive of life; its virulence springs specifically from the circumstance that life depends upon interlocking *circuits* of contingency, while consciousness can only see such short arcs as human purpose may direct.

Gregory Bateson
Steps to an Ecology of Mind

The most deadly physical danger in this country is the absorption of metallic poisons in water, food, medicines, washes, paints, dyes, enamels, etc., prepared and sold by the thoughtless and unprincipled. The demand of every thoughful patriot should be that no kind of poison should be sold under any other than its proper name. The public is, and always will be, powerless to adequately protect itself against insidious poisons used in many adulterations of the present day, and must perforce look for that protection to a government professing to guard the life and property of the citizen.

Scientific American
May, 1872

Only through crisis can one apprehend both change and the resistance to change.

Edgar Morin
Rumor in Orleans

The greatest material benefits and status awards are reaped by those who exhibit the highest degree of conformity to the existing system without questioning its basic purpose. Those who seek change, attempting to make the institution responsive to the needs of the people served by it, will inevitably. . .meet with the violent resistance to change intended to preserve the bureaucratic structure intact.

Joseph Garcia
The Message of Youth in an Age of Revolutionary Change

B.F. SKINNER

B. F. Skinner has maintained a laureate seat at the quiet center of the psychological maelstrom for well over a quarter of a century. His ideas have been invoked and impugned simultaneously, often by the same people. He instills respect . . . and dread. His experimental results portend 1984; his writings swell with strains of *Utopia*.

He has raised, time and time again, the philosophical issue of the existence or nihility of free will—the will that society, or a select few of its members, could conceivably impose on the individual.

This previously unpublished article, first presented at the Walgreen Lecture Conference on Education for Human Understanding held at The University of Michigan on April 4, 5, and 6, 1973, and later rewritten by Dr. Skinner for *Impact*, attempts to clarify and resolve this issue.

Impact wishes to extend its deep appreciation and thanks to B F. Skinner and to Edward L. Walker and James V. McConnell whose edifying responses to Dr. Skinner's speech and to Skinnerian principles in general have enlivened and deepened this presentation. We also thank the Walgreen Conference coordinators and the coordinators of the Future Worlds Lecture Series who made many of the preliminary arrangements that enabled us to reproduce these speeches in *Impact*.

We invite you to ask yourself: Are we free to have a future? Who will make us free?

Introductory Remarks

by Edward L. Walker
Professor of Psychology
The University of Michigan

Professor Skinner is, by a considerable margin, the most widely known living psychologist. His reputation is based on a wide range of substantial accomplishments that have had a massive influence upon psychology as an academic discipline and on the public at large. At the same time I believe it would be fair to say that many of his contributions have become the center of controversy. In preparing this introduction I have tried to determine the source of the furor without complete success.

In his novel, *Walden II*, Professor Skinner outlined an ideal community in the great midwestern, if not worldwide, tradition of the creation of an idealistic social organization. He and his book inspired a number of attempts at operational Waldens by young, possibly alienated, individuals. A few such communities that he has inspired still exist today, struggling to realize the ideal of his book.

In what seems to be an entirely separate realm, Skinner founded the field of psycholinguistics. The field was also founded separately, nearly contemporaneously, and somewhat differently by Noam Chomsky. It is beyond my ken at the moment to assess the causes, but a haze of acrimony hangs thickly over the Charles River, which separates Harvard and MIT, and thus, Professors Skinner and Chomsky.

Through brilliant methodological contributions and a reconceptualization of the field of animal motivation and learning, Skinner founded an approach to the subdiscipline of psychology. Sometimes referred to as "operant conditioning" or the "experimental analysis of behavior," this development has taken on the characteristics of a movement. In the process the earlier contributions of Pavlov, Thorndike and Hull have been eclipsed and nearly obscured from view. The principles of change developed in the laboratory along with the implicit denial of the seminal importance of early experience or unconscious factors has produced the field of behavioral modification. This rapidly growing form of therapy and behavioral manipulation threatens to destroy the psychological evidence, and thus, to eclipse and obscure the contributions of Freud, Rank and Jung along with Pavlov, Thorndike and Hull. Furthermore, by undermining psychoanalytic institutes in particular, and the field of psychology in general, behavioral modification threatens to disjoint a large number of professional careers.

To come closer to home, we must point out that Skinner has made many contributions to the field of education. I suppose the most general label for his contributions is in his development of what could be called "educational technology," of which the most conspicuous example is programmed learning. If programmed learning will really do what its most enthusiastic proponents say it will, then many of us who teach may become obsolete, too inefficient and expensive as compared to self-paced learning programs.

I am well aware that Professor Skinner would be the last to claim that such learning programs will wipe out the careers of those of us who teach. He would not himself suggest that behavioral modification would wipe out psychoanalysis and psychiatry. He would not even contemplate the possibility that Walden II would replace other bases of social organization and thus eclipse such philosophies as communism and democracy or existing pragmatic forms of government.

However, Skinner does attract and inspire adherents. He is the intellectual fountainhead of the movements he has inspired while staying apart from real life Waldens, the psychological and psychiatric clinic, the general classroom, the halls of government. Thus he remains remote from the scene of controversy that is generated primarily by his followers. I have the privilege of introducing to you one of the most exciting, interesting, effective, and important social scientists of our time, Professor B. F. Skinner, who will speak on the topic, "Are We Free to Have a Future?"

are we free to have a future?

It is often pointed out that I have specialized in the behavior of rats and pigeons, and it is usually implied that as a result my judgment about people has been warped, but at least sixty percent of what I have published has been about human behavior. I have discussed government, religion, psychotherapy, education, language, incentive systems, art, literature, and many other human things. And so, of course, have thousands of other people, but I do not believe I have offered my readers just more of the same, for that is where the other 40 percent comes in. In writing about human affairs I have always stressed the implications of an experimental analysis of behavior, an analysis which was, indeed, first carried out on lower species, but which was eventually extended to human subjects with comparable results. Even the work with other species was relevant to human affairs, because it revealed the extraordinary role played by the environment in the determination of behavior. One did not need to believe that men and women were just like rats and pigeons to begin to look more closely at the world in which they lived. It became clear that certain features of that world had a bearing on some longstanding problems. What follows is offered as an example.

Doomsday prophesies are now a commonplace of daily life. We are continually reminded that, for all its past triumphs, mankind may be headed straight for disaster. Unless something is done, and soon, there will be too many people in the world, and they will ever more rapidly exhaust its resources and pollute its air, land, and water, until in one last violent struggle for what is left, some madman will release a stockpile of nuclear missiles. There are optimists, of course, who contend that the human species, like some other species, will prove to have some built-in mechanism which limits population (a mechanism more acceptable than the famine, plague, and war which have served that purpose in the past), that new and non-polluting sources of energy will be discovered, and that some kind of world government or possibly the deterrent effect of even more horrible weapons will put an end to war. But the trend is certainly ominous, and Cassandra, who always prophesies disaster, may again be right. If so, it will be for the last time. If she is right now, there will be no more prophecies of any kind.

One of the most ominous things about the future is how little is being done about it. The great majority of the people on the earth do not know that there is a problem, and of those who know very few take any relevant action. A major difficulty is that the future always seems to conflict with the present. It may be obvious to commuters that their private cars are polluting the air they breathe, but a private car is nevertheless much more convenient than public transportation. Energy may be in short supply, but it is pleasant to heat buildings in the winter and cool them in the summer so that roughly the same kind of clothing can be worn in both seasons. Inflation undermines the future which would otherwise be provided by personal savings or social security, but higher wages for labor and higher prices for management are momentarily rewarding. Overpopulation may be a major threat, but people take pleasure in procreation and pride in children. Wars may be inevitable so long as wealth is unevenly distributed, but those who are lucky enough to have an undue share naturally defend it. Physical and biological technologies are probably powerful enough to solve these problems and guarantee a decent future, but they will do so only if they are put to use. The problem is human behavior. How can people be induced to take the future into account? That is a question to which, I think, an analysis of behavior is relevant.

What does it mean to say that a person "takes the future into account" or acts in a given way "because of" something that will happen in the future? Can anything have an effect before it occurs? Final causes were soon ruled out of physics and eventually out of biology, but must we suppose that there is some way in which they function in the field of human behavior?

The traditional answer is yes. Human beings, it is said, differ from physical objects or non-human living things because they can *think* about the future. They can *imagine* the consequences of their action. They can act because they predict the future and therefore *know* what is going to happen. They can be affected by the mere *idea* or *concept* of a future. This is a mentalistic explanation of human behavior, of course, and it has the weakness which has always been the hallmark of mentalism. Thoughts, images, knowledge, ideas, and concepts are no explanation at all until they have been explained in turn. How do people come to think, imagine, have ideas, or develop concepts about the future? What does knowing about the future mean? Questions of this sort bear directly on the practical problem. Is it any easier to get people to think about the future than to get them to act with respect to it? In fact, are not the measures we say we take to change minds the very measures we take to change behavior? Even for the mentalist the problem is to get people to act *as if* they were thinking about the future. All we can change are the circumstances in which people live, and we want to change them in such a way that people will behave differently. We are on safer and more promising ground if we stick to the behavior.

Some biological processes are relevant to the problem of final causes. Although no future ever has an effect on the present, there is a sense in which living things are affected by consequences. An "effect of the future" was first recognized in Darwin's principle of natural selection. A genetic change or mutation does not occur be-

Gordon Allport
***Gordon Allport: The Man and His Ideas*, 1971, by Richard I. Evans**

I don't care what motivated Freud, Clark Hull, John Dollard, Neal Miller or B. F. Skinner. It seems to me that their ideas can be tested on objective grounds and either be accepted or not accepted according to a bulk of evidence. Truth is, I think, what informed people are eventually fated to agree upon.

cause of any relation to the survival of the species, but if the resulting trait promotes survival, as it does in a few cases, the mutation becomes a characteristic of the species. We say that it enables the species to adapt or adjust to an environment, and adaptation and adjustment, like survival, point toward a future. Moreover, characteristics selected by past events seem *designed* to have an effect on the future. (The environment must remain essentially unchanged with respect to the features which have played a part in selection. Only that future is "taken into account" which resembles the past.)

The term "purpose" shows the change in formulation required. Before Darwin the purpose of any feature of the human body—say, the hand—seemed to lie in the future. A baby was born with a hand designed to grasp objects in the world in which it was to live. The theory of natural selection moved the significance of grasping into the past. A person is born with a hand which will be effective in his environment because his ancestors had hands which were effective in their s. Procreation is an exclusive characteristic of living things; and it is the transmission of traits from generation to generation which makes natural selection an apparently creative principle "taking the future into account."

The individual organism is also affected by consequences. The process evolved through natural selection, but it operates on a very different scale. It was foreshadowed by philosophies of hedonism and fairly explicitly stated in Thorndike's Law of Effect. It has been most clearly demonstrated in the experimental analysis of operant conditioning. If a given bit of behavior has a consequence of a special sort, it is more likely to occur again upon similar occasions. The behavior is said to be strengthened by its consequences, and consequences having this effect are called reinforcers. For example, a foraging pigeon brushes aside a leaf lying on the ground and in doing so uncovers a seed; if the seed is reinforcing, the pigeon is more likely to brush aside similar leaves in the future.

In spite of the difference in time scale, operant conditioning bears a striking resemblance to natural selection. It builds an adaptation or adjustment to the environment. It seems designed to have an effect. It makes possible a similar disposition of purpose, moving it from the future into the past. All of this gives behavior a kind of orientation toward the future. (As in natural selection, the environment must be reasonably stable; behavior which is strengthened under a given set of circumstances will continue to be effective so long as the circumstances do not greatly change. The process "takes into account" a future which resembles the past.)

And only an immediate future. Operant conditioning would be maximally effective if it strengthened behavior which actually produced its consequences. Hedonism and the Law of Effect seemed to guarantee this because they both appealed to feelings—the pleasure and pain or satisfaction and annoyance which resulted from action. But the reinforcers which figure in the analysis of operant behavior are physical things, and they are consequences simply in the sense that they follow behavior. They need not be produced by it. The equipment used in the operant laboratory arranges temporal sequences only; there is no *functional* connection between a response and its effects. It is easy to show that a reinforcer which follows a response but has no other relation to it is effective; what we call superstition is an example.

This is a defect, and it must be attributed to the exigencies of natural selection. Operant conditioning evolved as a useful process in which behavior was brought under the control of *any* consequence, functional or not. It was useful because in general any event which followed an action was likely to have been produced by it. It was not necessary to take into account the reasons why a reinforcer occurred, and it is difficult to see how that could have been done.

The more immediate a consequence, the more likely it is to have been produced by the behavior it follows, but there are other reasons why reinforcement must be quick. If there is a delay, intervening behavior will be affected, possibly more strongly than the behavior responsible for the reinforcer. And reinforcement must *overlap* behavior if we are not to suppose that something which has not yet occurred can have an effect. The future mediated by operant conditioning is therefore not very remote.

(A possible exception was once called "stomach memory." In a laboratory demonstration, a rat is made sick a few hours after eating a particular kind of food and is then found to show a weakened preference for the food. If the rat is made sick through radiation, no intermediate activity can be involved. Such a mechanism should have great survival value in protecting organisms against indigestible or poisonous foods. The aversive consequence is anatomically linked to ingestion and "overlaps" it in that sense, and for the same reason it need not affect intervening behavior of other kinds. If the evidence is valid, a fairly remote future is mediated by this mechanism, but it is an exception. In general a reinforcer must be closely contingent on behavior if it is to be effective.)

Nevertheless, organisms do behave "because of" events which take place a long time in the future. A possible connection is made through a different process called respondent conditioning. The process probably evolved because it prepared organisms for unpredictable features of their environments. Foodstuffs like sugar and salt elicit salivation as an early step in digestion, but because sweet and salty foods vary greatly in appearance, organisms could not have developed the capacity to salivate appropriately to their mere appearances, no matter how important such a preparatory salivation might be.

Montrose M. Wolf, applied behaviorist, *Psychology Today* interview June, 1973

Most of us are dirt scientists who scratch out data day by day. We're not as concerned about these issues or as skillful in writing about them as Skinner is, though we do find them fascinating to read about and think about and discuss during our moments of leisure.

Through conditioning, the visual appearance of a particular food comes to elicit salivation, which is "directed toward the future"--though again not a very remote future.

Something of the sort affects the role of the stimulus in operant behavior. Sweet and salty foods reinforce the behavior of finding or capturing them, and they do so because organisms inclined to be so affected were more likely to survive and transmit the inclination. But, again, since foods vary widely in appearance, a susceptibility to reinforcement by the appearance of a food could have had little chance to evolve. What evolved instead was a process in which any occasion upon which behavior is likely to be reinforced becomes reinforcing in its own right.

Good examples appear when behavior is only intermittently reinforced. In a standard experiment a hungry pigeon must respond, say, 5000 times before a response is reinforced with a small amount of food. It must then respond 5000 times again before another response is reinforced. Shortly after reinforcement the pigeon could be said to be responding "because of" an event which lies in the fairly distant future. A ratio of 5000 to one can be maintained for hours, but only after a special program in which progress through the ratio becomes reinforcing.

Long chains of responses can be built up by conditioning reinforcers. In a typical classroom demonstration a rat executes a series of perhaps ten different responses, each of which is reinforced by the opportunity to execute the next, until a final, usually unconditioned, reinforcer appears. The first step seems to be taken "for the sake of the last," which lies in the fairly distant future. Something of the same sort occurs, when, for example, a person builds a shelter. The last step brings protection from the weather, but it can be taken only after earlier stages have been completed. As the shelter is constructed, each step is reinforced by the opportunity to take another step. (Not all sequences originate in this way, as we shall see, but once established they usually continue to be supported by some such arrangement of conditioned reinforcers.)

Even when supplemented by the conditioning of reinforcers, operant conditioning will not, without help, generate much of the human behavior which "takes the future into account." No individual could, in a single lifetime, acquire a very large repertoire in this way. A farmer plants in the spring "in order that he may harvest in the fall," but it is unlikely that any one person ever learned to do so by himself. Another process comes into play. It involves other people, who accumulate and transmit useful behavior.

A basic process, imitation, may be part of the human genetic endowment. Other people have been a stable feature of the human environment, and a tendency to behave as others are observed to behave should have had great survival value; others presumably behave as they do for good reason, and by imitating them an individual can expediently acquire behavior useful for the same reason. Many species show innate imitative behavior, but its existence in man is still debated. In any case, there are contingencies of reinforcement, rather like those of survival, which induce people to behave as others are behaving. By imitating a person whose behavior has already been shaped by prevailing contingencies, a person acquires appropriate behavior without being directly exposed to the contingencies himself. The customs and manners of a group seem to be maintained by such a process. With the help of imitation, the individual need not construct for himself the long sequences which bring his behavior under the control of fairly remote consequences. He acquires a repertoire vastly greater than any within his reach in a non social environment.

There are other arrangements of reinforcers which seem to bring the future more actively into play. Governmental practices supply good examples. The reinforcers used to "keep the peace" are almost exclusively aversive or punitive; for example, citizens are fined, flogged, or imprisoned when they behave illegally. The reinforcers used to induce citizens to defend a government against its enemies are also largely aversive; defectors and deserters are imprisoned or shot. A system of conditioned positive reinforcers is also used, ranging from medals to memorials. The behavior strengthened has consequences which reinforce the government for maintaining these conditions, but the citizen may gain indirectly (if less immediately) from the order and security which result. His behavior is due primarily to contrived governmental contingencies, but it has consequences in the possibly distant future which would be reinforcing if they occurred sooner. The governmental practice bridges a temporal gap.

Religious agencies also control their communicants with contrived reinforcers both positive and negative. The claimed power to determine extraordinary rewards and punishments after death is used first of all to strengthen the agency, but the communicant may acquire useful practices of self-control, as well as the advantages of living among well-behaved people.

Possibly the greatest of all conditioned reinforcers is money. Worthless in itself, it becomes reinforcing when exchanged for established reinforcers. Industry induces people to work by paying them. It enjoys relatively immediate gains, but people in general may profit from the resulting development and production of goods. Educa-

Behaviour Therapy in Clinical Psychiatry
V. Meyer and Edward S. Chesser, M.D.'s, 1970

Even the most fanatic Skinnerian. . .would admit that the elimination of a severe phobia by operant conditioning alone would be extremely difficult, if not impossible. Behaviour therapists are gradually becoming aware of the limitations of rigidly applying particular therapeutic techniques according to the diagnostic label and it is becoming more common to employ a combination of methods.

tion shows the same pattern. The craftsman teaches his apprentice because he acquires a useful helper, but the apprentice gains by becoming a craftsman in his own right. It would be difficult to spot all the reasons why parents, peers, employers, religions, and governments countrive educational contingencies, but a distinction may still be drawn between the advantages gained by those who teach or pay for teaching and the possibly long-deferred gains of the learner. Ethical and moral practices are less conspicuously organized, but the same pattern prevails. People control each other—governing, teaching, giving incentives—because of immediate gains but in ways which yield possibly long-deferred advantages for all.

The consequences which lie in the possibly distant future are often cited to justify practices in government, religion, economics, education, and ethics. Governments may act primarily to maintain their power, but they seek legitimacy by pointing to peace and security. Religious agencies appeal to values such as peace of mind and compassion. The entrepreneur justifies himself by pointing not to his profits but to the resources he develops and the goods he makes available. And when a proposal is made to change a practice, it is usually supported by pointing to the deferred advantages rather than the immediate gains of those who propose it. Nevertheless, it is quite unlikely that the deferred consequences have any effect as reinforcers. They are, on the contrary, simply incidental by-products.

This is not to deny that they serve a different kind of function. The fact is that cultural practices have evolved in which contingencies of immediate reinforcement generate behavior having remote consequences, and this has presumably happened in part because the consequences have strengthened the culture, permitting it to solve its problems and hence survive. That the remote consequences, no matter how important for the culture, are nevertheless not having any current effect is all too evident when efforts are made to take into account a future which is not the by-product of currently reinforced behavior.

We have, of course, turned to various controlling agencies to forestall the disasters which threaten us. To reduce pollution, parts of cities are legally closed to private cars. Special lanes on bridges, in tunnels, and on highways are reserved for cars with a certain number of passengers or for buses. The use of energy is taxed. The manufacture of non-degradable detergents, herbicides, and insecticides is prohibited. Religious and legal sanctions against birth control or abortion are eased, and economic incentives favoring large families are reduced or abolished. Children are taught to avoid waste, and campaigns in the mass media are designed to have the same effect on adults. We are to insist upon returnable bottles and cloth towels; we are to use recyclable handkerchiefs rather than tissues.

These measures are obviously taken for the sake of possibly long deterred consequences, but it has proved to be difficult to support them with immediate reinforcers. In fact, in democratic countries few if any institutional sanctions and suasions, designed for whatever purposes, are now working well. In our own culture, for example, people do not seem to be as law-abiding as they once were or as readily disposed to serve in the armed services. This does not mean that they have developed criminal tendencies or lost their patriotism; it means that laws are no longer as strictly enforced or military service as highly honored. We impose light punishments or suspend sentences, and in many states the death penalty has been abolished. We no longer shoot deserters, or glorify our heroes. (Only the returning prisoner of war is met with a brass band playing "See, the conquering hero comes!")

Fewer people now go to church or observe religious practices. This does not mean that they are less devout; it means that, as the Pope recently put it, a veil of silence has been drawn over the Devil. Few theologians of my acquaintance mention hellfire, and most of them speak of heaven with a certain embarrassment.

Few people now work very hard. This does not mean that they have grown lazy; it means that economic incentives are no longer very effective. In the nineteenth century, it was believed that a hungry labor force was needed if industry was to prosper, but wages are now exchanged for goods which are less acutely needed than food. Welfare, like affluence, makes money less reinforcing; medicare and social security have replaced the threat of the poor farm, and even the prospect of a crystal palace is failing to recruit executive eager beavers.

More and more young people drop out of school and college. This does not mean they have lost their curiosity, their love of learning, or their desire for an education, it means that educational contingencies are no longer very compelling.

People no longer observe many of the social graces. This does not mean that they have become rude or thoughtless; it means that they are no longer consistently commended or punished by their peers. It has often been remarked that we no longer complain. In fact, the only behavior likely to be punished by one's peers is the behavior of complaint itself.

I have suggested elsewhere that this failure of institutional and ethical control can be attributed to certain features of the struggle for freedom. Men and women (exhibiting certain standard features of human behavior) escape from dangerous, irritating, annoying, or uncomfortable things. Among such things we must list the aversive measures used for purposes of control by other people, organized or unorganized. A person may escape from them by breaking contact—through defection, for example, or apostasy, truancy, or vagrancy—or by weakening or destroying their controlling power—by riots, say, or strikes, boycotts, or revolt. People are said to govern themselves—electing their own rulers, making their own mystical contact with God, sharing in the decisions made by the companies they work for, and so on. It is not surprising that they should not use strong measures, that they should avoid severe punishment and the extreme deprivation needed to make a small reward effective. They may end by de-

John Platt
Biophysicist
University of Michigan

Skinner may have had the worst press of any great scientist since Darwin.

stroying all forms of control, trusting to the human genetic endowment to survive without help.

The process can be followed in miniature in education. Instruction was once quite aversive. The Egyptians, the Greeks, and the Romans all beat their school boys, and medieval sculpture portrayed the schoolmaster with the tool of his trade. the birch rod. Corporal punishment is still with us. Positive reinforcers in the form of good marks, grades, promotion, diplomas, and prizes have been suggested but only as parts of ineffective contingencies of reinforcement. Rousseau proposed to solve the problem by letting students study what is naturally reinforcing. This is the strategy of the contemporary "free school." As a final step it has been suggested that schools be abolished, that the whole world be converted into a "learning environment."

Those who have proposed and effected changes of this kind have moved to destroy certain aversive or exploitative features of the environment. As a result people have more often felt free, and they have also probably enjoyed a greater sense of achievement or worth. But we can scarcely overlook the fact that some of the contrived contingencies under which human behavior has had important deferred consequences have been destroyed. As a result people are more susceptible to immediate consequences. It would be unfair to take the hippy culture as typical of American life today, but it serves to point up certain features. Young people have turned in large numbers to the immediate gratifications of drugs and sex, to forms of art and music which can be enjoyed without preparation, and to idleness as an escape from social and economic responsibilities. In doing so they have had the support, often merely implicit, of several current philosophies—of existentialism with its rejection of both past and future, of phenomenology with its concentration on the experience of the moment, and of the structuralism of anthropology and linguistics with its neglect of causal factors lying outside the topography of behavior itself. They have turned to mystical practices of the East, surrendering themselves, as one exponent has put it, "to the awareness of the present moment while forgetting the past and ignoring the future." Humanistic psychology has added its support by emphasizing self-actualization, the meaning of which is perhaps clearer in French where *actuel* means current or contemporary.

Those who are alarmed by this excessive concern for immediate gratification are likely to argue that we should restore strong measures. All Communist countries and police states have taken this step, and stronger sanctions are being proposed in America. We are urged to make penalties more severe, restoring the death penalty for certain crimes including the sale of hard drugs, and enforce the law. The money people receive should be made more sensitively contingent on what they do. Welfare payments should depend on useful work. But this is not necessarily a way to make the future more effective. Stronger measures are also likely to be proposed for the sake of immediate consequences—for others. Powerful controllers are also committed to quick effects, and the remoter gains which sometimes occur as a kind of by-product are by no means guaranteed. The pendulum has swung from despotism through democracy to anarchy and back again many times, with little or no change in the future prospects of mankind. A stable equilibrium between control and countercontrol may occur from time to time, but equilibrium will not suffice.

We see the limitation of control and countercontrol in the incentive conditions in most industries. A hundred years ago the editor of the *Scientific American* wrote this: "We must fairly and honestly examine the conditions of the laboring classes, upon whom the whole structure of the social organism rests. The questions raised by them and in their behalf can never be adjusted by the two extremes—those anxious to secure the greatest possible amount of pay for the least possible work, and those anxious to obtain the greatest possible amount of work for the least possible pay." The opposing contingencies in industry are fairly obvious: the employer controls his employees with reinforcement, mostly monetary; the employees control the employer with such measures as slowdowns, strikes, or boycotts. In what is called bargaining, conditions are worked out which are acceptable to both parties. The trouble is, they are not good conditions. They do not induce many people to work hard or carefully or enjoy what they are doing. Nor do they take into account the consequences for society as a whole, such as

John P. Sisk
Harper's
November, 1973

We live in what Theodore Roszak calls a technocratic trap, and the inevitable consequence of such an environment is to objectify, depersonalize, secularize, and alienate. We have become numbers fed into computers, mere cogs in wheels, chess pieces pushed about by mega-forces we can neither comprehend nor control. The pieties that once gave a larger dimension to our lives have been severely questioned if not completely subverted. Saviours like B. F. Skinner tell us that our notions of freedom and dignity are illusions. So we have a sense of ourselves as print-outs on a computer-room floor: very disposable objects.

the usefulness of the product, the general level of employment, or the development and conservation of resources.

The same limitations of control and countercontrol are seen in the other fields we have been examining. In government, for example, a system of checks and balances may make for a kind of stability but not for the most productive order; and between one government and another what is significantly called a balance of power yields at best the uneasy equilibrium we call peace.

We cannot continue to leave the future to the occasionally beneficial side effects of a strong concern for the present. Something more explicit must be done. But who will do it and why? Who is to plan for the future and under what conditions is he likely to do so? One possibility is that people will be more concerned for the future (for whatever reason) if they are less concerned for the present. Leaders in government, religion, and industry, have sometimes thought about the future and acted with respect to it but they have usually done so only when their present problems appear to be solved. It is the successful government or governor who can afford to become benevolent. Very rich men have stopped using money to make more money and, especially when about to die, have set up foundations which are relatively free of present concerns and can act with respect to the future.

Other candidates for the custodianship of the future are to be found among those who have little or no power and hence little or nothing to gain from the present. In the nineteenth century, the press emerged as a "fourth estate." The government, the church, and the merchants represented the powers exerted through the police and military, the mediation of supernatural sanctions, and money, respectively. The press controlled no comparable reinforcers; it was limited to uncovering and reporting facts and exhorting to action, and it enjoyed little or nothing by way of immediate gain. The press was, therefore, concerned with the future, and it criticized the other three estates accordingly. From time to time it has been important enough to be suppressed by the other estates. A press which becomes the instrument of government, religion, or economic system can, however, no longer play this role.

The teacher satisfies the same specifications: he has little power, and teaching has few immediate consequences. The craftsman who teaches an apprentice quickly gains the advantage of having a useful helper, but teachers in schools, colleges, and universities are affected, if at all, by long deferred results. Education is, indeed, primarily a preparation for the future; it gives the student current reasons for learning to behave in ways which will be useful to him later. Like the press, education serves this function only to the extent that it is not controlled by the current interests of a government, religion, or economic system.

We should expect that those most likely to take the future into account will have two other qualifications which lie in the field of science. Whatever a person's reasons may be, he is more likely to act if he has a clear picture of the future. It does not take a scientist to be aware of changes in population, pollution, dwindling supplies of energy, and so on or to make rough extrapolations to the future, but science can do all this more effectively. It can collect data far beyond the range of personal experience, and it can project trends. The projections of the Club of Rome reported in *Limits to Growth* are an example.

The scientist should also be best able to say what can be done. The physical and biological sciences are needed if we are to redesign our cities to avoid the effects of crowding, to develop new forms of transportation, and to discover new sources of energy and new methods of contraception. Unfortunately physical and biological technology alone cannot guarantee that its solutions will be put into effect. To solve the major problem we need an effective technology of behavior. We need, in short, a new field of specialization—the design of cultural practices.

Frazier, the protagonist of *Walden Two*, is a kind of archetype. He has all the qualifications of the designer of the future. He wields none of the power to be found in a police force, in the mediation of supernatural sanctions, or in money. He has no personal power; to make that clear I gave him what might be called negative charisma. Since his place in the history of Walden Two has been deliberately concealed, he gains nothing by way of acclaim as a founder. He enjoys no special share of the proceeds of the community. He is, in short, the complete non-hero. In him the present has been almost totally suppressed; the future and its surrogates have taken complete control.

The specifications of that future were listed in *Beyond Freedom and Dignity*. Frazier has tried to construct a world in which "people live together without quarreling, maintain themselves by producing the food, shelter, and clothing they need, enjoy themselves and contribute to the enjoyment of others in art, music, literature, and games, consume only a reasonable part of the resources of the world and add as little possible to its pollution, bear no more children than can be decently raised, continue to explore the world around them and discover better ways of dealing with it, and come to know themselves accurately and, therefore, manage themselves effectively." He has done this by constructing a social environment rich in immediate reinforcers, so selected that they strengthen the kinds of behavior which make a future possible.

And the reinforcers are positive. That is why the citizens of Walden Two feel free. Frazier himself, as the designer of culture, is also under the control of positive consequences, no matter how remote. He has responded

A. H. Maslow, 1971
The Farther Reaches of Human Nature

Many actual and fantasied Utopias have relied upon a wise, benevolent, shrewd, strong, effective leader, a philosopher-king. But can this be counted on?. . . How possible are leaderlessness, decentralization of power, retention of power by each individual and leaderless groups?

to the appeal of Utopian rather than Cassandran predictions—an important point. Threatening projections sometimes spur action (it is perhaps just another sign of the weakness of the future that we so often respond only to threats), but they also induce people to escape simply by turning to other things. It is possible that we shall act more consistently with respect to the future when we see the possiblility of building a better world rather than merely fending off disaster.

But something more is needed. Why should anyone design a better way of life? The answer has been waiting for us in the Utopian literature. An intentional community emphasizes the issue of survival. The overriding question is: Will it work? It is not so obvious that the same question must be asked of every culture. It is asked, at least implicitly, by all those who are trying to solve the problems which face our culture today, and it must eventually be asked about mankind as a whole. Overpopulation, pollution, the exhaustion of resources, nuclear war—these are threats to the survival of the human race. Will the world mankind has made for itself work?

And so we come at last to my title: Are we free to have a future? Put commas around "free" and the question is this: We who call ourselves free, are we to have a future? We call this the free world and America the land of the free. We insist that the wars we fight are fought in the defense of freedom. We value practices in government, religion, economics, education, and psychotherapy to the extent that they promote feelings of freedom. The question is whether practices *chosen for that reason* have survival value. Are they to make a major contribution to the future, or will practices chosen for different reasons by different people—say, the Chinese—displace them? The question once suggested a kind of social Darwinism, but cultural practices are no longer confined to any one territory, nation, race, religion, or economic system. What is evolving is a social environment, in which the genetic endowment of the human species will be maximally effective.

This is a test of freedom in the sense of a test of cultural practices selected because they make people feel free. We escape from or destroy aversive control when we can do so; that is the point of the struggle for freedom. When we act because we have been positively reinforced, we feel free and do not try to escape or countercontrol. The mistake is to believe that we are then actually free. This is not a philosophical or theological quibble. On the contrary, it is a point of the greatest practical importance.

Let us compare the lives of young people in China and the United States today. We say that the young American is sexually free, while the Chinese, if we can trust the accounts we have, observes a strict moral code. We say that the young American chooses his work—or even not to work at all—while the Chinese is assigned to a job and works long hours. The young American has access to a great variety of books, movies, theatres, and sports, but in China almost all of these are selected by the government. We say that the young American chooses where he is to live, while the Chinese has space assigned to him. The young American wears what he pleases, the Chinese wears a standard uniform. It is easy to exaggerate these differences. The Chinese no doubt have some choice, and not all Americans are free to choose their work or where they live. But, even so, the American seems to have much more freedom. Clearly, he has many more opportunities; he can do a great many more kinds of things. But is he really free to choose among them? Why, in fact, does he wear a particular kind of clothing, live in a particular movie, work at a particular job, or observe a particular sexual standard? Certainly the answer is not as easy as, "because the government tells him to do so," but that does not mean that there is *no* answer. It is much harder to demonstrate the control exerted by a person's family, friends, education, religion, work, and so on, but it would be foolish to neglect it.

The *feeling* of freedom is another matter. It depends on the kinds of consequences responsible for behavior. Whether either the American or the Chinese feels free depends upon why he behaves as he does. If the young Chinese is conforming to his way of life because he will be denounced by his fellows and severely punished if he does not, we may be sure that he does not feel free. In that case he is doing what he *has* to do. But if Mao Tse-tung has created a social environment rich in *positive* reinforcers, then the young Chinese may be doing what he *wants* to do, and it is quite possible that he feels freer than the American. Moreover, it is possible that the reinforcers affecting him have been chosen precisely because of their bearing on the future of the Chinese way of life.

Remove the commas, and my title is more to the point: Are we sufficiently free of the present to have a future? Our extraordinary commitment to immediate gratification has served the species well. The powerful reinforcing effects of drugs like alcohol and heroin are no doubt accidents, but our susceptibilities to reinforcement by food, sexual contact, and signs of aggressive damage have had great survival value. Without them the species would probably not be here today, but under current conditions they are almost as nonfunctional as drugs, leading not to survival but to obesity and waste, to overpopulation, and to war, respectively.

No matter how free we feel, we are never free of our genetic endowment or of the changes which occur in it during our lifetime. But if other aspects of human nature, aspects we sum up in the word intelligence, come into play, we may design a world in which our susceptibilities to reinforcement will be less troublesome and in which we will be more likely to behave in ways which promise a future. The task can scarcely be overestimated. Happiness is a dangerous value, and the pursuit of happiness has clearly been too successful. Like other affluent nations, we must, to coin a horrid word, "deaffluentize." People have done so in the past when pestilence and famine have deprived them of natural reinforcers, and when revolutions in government and religion have changed their social environments, but the power of immediate reinforcement continues to reassert itself and with ever more threatening consequences. This could happen once too often. It is possible that the human species will be "consumed by that which it was nourished by." We have it in our power to avoid such an ironic fate. The question is whether our culture will induce us to do so.

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by James V. McConnell
Professor of Psychology
The University of Michigan

The Positive Side of Freedom

This article was presented as a speech at the Walgreen conference on Education for Human Understanding held at the University of Michigan, April 4, 5, and 6, 1973. The talk was in response to an address by B. F. Skinner entitled, "Are We Free to Have a Future?" No part of this talk may be reproduced without the written consent of James V. McConnell.

It is both a genuine pleasure to hear Professor Skinner again, and a great honor to be asked to comment on his remarks. Indeed, my own difficulty is in deciding what to say. Expecting McConnell to come up with profound insights into any speech by Professor Skinner is rather like expecting a parish priest to utter a few cogent criticisms on the latest Papal Bull. But then, having been a psychologist for many years, I've had a great deal of experience with "bull," so perhaps all is not lost. In fact, as I was gathering my thoughts together, it occurred to me that planning this Walgreen Conference must have been something like planning a rich intellectual banquet. First, you ask a noted scientist—Professor Walker—to offer a toast to whet the appetite. Then you invite a distinguished scholar—Professor Skinner—to prepare the entré, a meaty pudding made up of bits and pieces of his life's work. And then, to make sure the pudding is well done (and not merely half-baked), you request a local butcher to roast the main dish—and perhaps the chef—ever so slightly.

How much easier this whole affair would have been—for me at least—a few years ago, back in the bad old days before I discovered God, B. F. Skinner, and behavior modification—though not necessarily in that order. A few years back, I would merely have indulged myself in a bit of traditional "Academic Gamesmanship." According to the Gamesmanship tradition, it would have been my delicious task to criticize, criticize, criticize. No matter whose talk I was commenting on, the game's rules required me to begin with a few mildly reinforcing words about the speaker's place in the scholarly cosmos. Then I would have given an extensive summary of all that I found particularly worthwhile in his or her talk. By custom, this "extensive summary" must not last more than 30 seconds. Next I would have devoted five minutes or so to slicing the "meaty address" to shreds, exposing a bit of fat here, an indigestible morsel there, taking great care to ignore anything that was really intellectually nourishing. Having thus dismissed the meal as not quite living up to *Guide Michigan* standards, the Gamesmanship Rules then allowed me to offer the audience a delectable dessert. That is, I would give a deep sigh, reach in my pocket, pull out a package, smile and say politely, "Luckily, I just happened to bring along some slides..." And the rest of my alloted time would be devoted to a lengthy discussion of my own research.

If a student spoke out in class and said something cogent, I ignored it. But if the student said something even mildly contestable, I would leap to the attack. Of course, the students soon learned not to talk at all, but that was rewarding to me, because it proved how crystal clear my lectures were.

As I said, that is what I might have done a few years ago. It wouldn't have mattered then that I agree wholeheartedly with what Professor Skinner has said this afternoon, or that I consider him on an intellectual par with Freud and Darwin. For the Rules of Academic Gamesmanship require a critic to *criticize*, not praise, and with the best of intentions, I would have tried to teach Professor Skinner a lesson by punishing him for even the tiniest flaw or misstatement he made. And if he didn't make any mistakes, it would have been up to me to invent a few and then attribute them to him. And if I were called to task about it later on, I could have responded, "Well, now, my intentions were surely good, and you can't just let the man go around telling half-truths, now can you?"

Sadly enough, now that I have finally begun to understand what Professor Skinner has been saying all these years, I find I can no longer indulge myself in the immediate gratifications of Academic Gamesmanship. Rather than judging my actions solely in terms of my own intentions, I find I must measure the *actual* effects that my words may have on the speaker, and on the audience. And to do so, I must follow the principles of behavioral change

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that Professor Skinner has disclosed in his many brilliant experiments.

As you know, one of Skinner's principles is that behavior is influenced by its consequences; that is, we seldom learn anything without some kind of feedback. Another principle is that positive feedback—or reward—is usually a far more effective change agent than is negative feedback, or punishment. If you want to change a person's behavior, it is usually better to praise correct responses than it is to criticize incorrect responses. This may seem a very simplistic, even mechanistic view of human nature, but believe me, it really isn't. Perhaps the best way I can bring that point home is by telling you very briefly how Professor Skinner's ideas have forced me to change my teaching style. Then I would like to show you some imaginary slides—that is, present you with some case histories that demonstrate how successful the techniques of behavior modification can be.

When I first came to Michigan, nearly 20 years ago, I taught my classes the way I had been taught. That is, I saw it my academic duty to uproot falsehood and sloppy thinking wherever they raised their nasty heads. If a student spoke out in class and said something cogent, I ignored it. But if the student said something even mildly contestable, I would leap to the attack. Of course, the students soon learned not to talk at all, but that was rewarding to me, because it proved how crystal clear my lectures were. I wrote grueling examinations that were designed to make sure few of the students could pass them. How else could I demonstrate to everyone in the class how little they really knew? Adn then, when I returned the papers, I carefully marked each *wrong* answer with a large, red "X." If my students failed to learn, it didn't bother me, for it was clearly their own fault. They simply lacked motivation, for isn't learning its own reward?

I used the same shock tactics with my colleagues, too. As some of you know, I edit what is surely the world's most obscure scientific journal. Whenever a manuscript would come to me for review, I would gratefully settle down for a glorious session of blue-penciling all of the mistakes the authors made. I thought it my duty as editor to teach those wayward scientists how to think and how to write, and I did so by making pungent comments in the margins of their manuscripts. If the authors then preferred to publish elsewhere, well, it just proves that some journals have higher standards than others.

Once I started teaching courses in behavior modification, however, I found that I had to practice what I preached. I tried to give up using threats and punishments entirely, but it wasn't easy. I mean, how do you get the students to come to class if you can't threaten to flunk them if they cut? The Skinnerian answer is this—you give the best lectures you possibly can, and you award the students bonus points for attending class. Since they can trade in the points to avoid writing a short paper, their attendance is maintained positively rather than negatively. Next, you state the academic goals for the course in measurable terms, and then you systematically reward even the smallest step that each student makes towards achieving those goals. You set up a feedback system so that the students have some measure of control over the conduct of the class. You offer the students many different ways of reaching those goals and allow them the freedom to pick their preferred route. And most of all, you make the whole experience so pleasant and rewarding that the students learn almost without realizing they are doing so.

In my undergraduate lecture course on behavior modification, we go one step further. We offer each student a super-reward for outstanding performance. That is, if the student achieves a grade of A+, he or she is allowed the privilege of taking the subsequent laboratory course. Because the lab has an excellent reputation, about a third of the lecture class students give up the immediate pleasures of goofing off and choose to work for the A+ grade instead.

Once I started teaching courses in behavior modification, however, I found that I had to practice what I preached. I tried to give up using threats and punishments entirely, but it wasn't easy. I mean, how do you get the students to come to class if you can't threaten to flunk them if they cut? The Skinnerian answer is this—you give the best lectures you possibly can, and you award the students bonus points for attending class.

It is the lab course that I am most proud of, for in this class the students get a chance to apply the Skinnerian principles in real-life situations. We have been lucky enough to arrange for field-placements in several near-by institutions—such as Ypsilanti State Hospital, the Milan Federal Correctional Institution, the local school system, the University Hospital, the Ford Motor Company, etc. After three weeks of training in what we call "tracking positives," the student is sent out to demonstrate that he or she can actually bring about a change in a client's behavior. Let me tell you some of the goals our students have achieved.

One young girl, Jane Michener, was assigned to work at Ypsilanti State Hospital. Jane's client was a 46-year-old white woman whom I shall call Mary Smith. She had been hospitalized for some 20 years, and her record stated that she was non-verbal. Jane's job—if she wanted an A in the course—was to get Mary Smith to talk, and Jane had about 12 weeks in which to do so. Jane began by taking a baseline of Mary Smith's verbal behavior—and found that Mary uttered the words "Um Hum" exactly four times in two hours. Perhaps it was foolhardy of us to expect that Jane could accomplish in a few weeks what hospitalization hadn't achieved in 20 years, but Jane tried anyhow. And I'm pleased to report that, by the end of the semester, Mary Smith's verbal output had risen from near zero to several hundred words per hour.

Mary Smith learned to talk because Jane put Professor Skinner's principles to work. At first, Jane simply offered Mary a jelly bean each time the woman said "Um Hum." Jane also gave her lots of praise and social approval. Within minutes, Mary was saying "Um Hum" quite fre-

quently, and gobbling up the jelly beans with gusto. Then Jane asked Mary if she could say "jelly bean." Mary refused. So Jane coaxed and cajoled until Mary said something that sounded like "jum bum." Instead of correcting her, Jane instantly gave Mary the candy and told her she was doing beautifully. After all, "jum bum" is closer to "jelly bean" than complete silence, and Mary deserved her reward. Then, using a process that Professor Skinner has called "shaping," Jane reinforced closer and closer approximations to the words "jelly bean." Once Mary Smith had learned this and several other words, Jane got her to put them together into very simple sentences.

Now, don't misunderstand. By no stretch of the imagination was Mary Smith "cured." She had many other behavioral problems that didn't show improvement simply because we had neither the time nor resources to work on them. We might note, however, that by the end of the semester, Mary Smith was beginning to speak spontaneously on the ward, even when Jane Michener wasn't around.

Two years ago, we had five students placed at Ypsilanti State Hospital; this semester, we have 35, and the hospital has begun hiring our graduates as full-time employees. They now have two wards that are run on Skinnerian principles, and a third such ward will be opened soon to act as a training ground for nurses and attendants who want to learn these techniques.

This past year, several of our students have been assigned to the federal prison at Milan. Their supervisor has been David Waxer, a senior in the Literary College. The primary task they have at the prison is to help some of the inmates improve their reading habits. We use a technique called the "talking dictionary." We begin by asking the prisoner what subject he wants to read about, then we provide him with whatever material he himself wants to master. We keep count of each and every word the inmate can actually read aloud, and we plot this information on a graph so they can keep track of their own improvement. When they stumble over a word, we pronounce it for them but urge em on. We never mention their mistakes; instead, we concentrate on what they can do. Not only do the men pick up new words quickly, but they also discover something very important—that they are capable of learning faster and reading better than they ever dreamed. Since the warden doesn't allow us to give the men jelly beans, all we have for rewards are pats-on-the-back. But tracking their own progress on a graph appears to be very reinforcing to most of the men. Perhaps that's the reason their reading test scores increase an average of a year or more after just a few weeks work with our students.

Our star pupil at Milan this year is a 23-year-old, white male whom I'll call John Jones. John spent most of the last six years in prison. When he arrived at Milan just last July, John was a trouble-maker, a hostile and aggressive young man determined to beat the system the only way he knew how—by violence. He had completed little in the way of formal education and tested out at about fourth grade level. When John volunteered for our help, the lab students began keeping track of all John's good behaviors and ignored his violent outbursts. It may seem a near-miracle to achieve in just six months, but John should complete his high school education some time this spring. More than this, he appears to have undergone a radical change in *all* his behaviors. He no longer punishes people when they annoy him; instead, he smiles and verbally rewards people when they're not annoying him. He has read the textbook we use in the lecture class and wants to learn more about behavior modification. When he gets out of Milan this summer, John Jones hopes to go on to college. In fact, he's applied here at Michigan. If some of you students are looking for a roommate who can teach you something about Skinner, I might have a name for you.

But the usefulness of behavior modification is not limited to institutional settings. Last year an engineer named Donald Barnicki came here for a seminar on the management of behavior change—a course we offer several times a year through the School of Business Administration. We take middle-level managers from companies all over the country and give them a week's concentrated exposure to Skinnerian principles. They then try to apply these principles back on the job. Don Barnicki works at the B.F. Goodrich Research Center at Avon Lake, outside Cleveland. When he returned to his desk, Don tried out the power of positive reinforcement. His particular unit helped to develop new chemical processes, and his group had never turned a profit. Indeed, they weren't expected to. In Don's words, the company's motivational strategy in the past has been "to tell a man what to do and then kick his ass if he didn't do it." Don changed all that. He allowed his workers to determine what their jobs ought to be and how and when their work ought to be done. He did this because his employees said that would be a powerful reward for them. He then got them to make graphs showing their progress and called attention to each bit of improvement they showed. Within months, his unit was making a profit for perhaps the first time in history, and worker satisfaction had never been higher.

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Don Barnicki then tried behavior modification in his own life. A few months ago, his elderly mother had a heart attack, followed by a stroke that paralyzed the right side of her body. When Don arrived at her bedside in California, the doctor said the odds were 100 to one against her lasting out the week. Don decided that behavior modification might keep her alive a little longer than that. When he got there, all his mother's relatives were standing around, crying and saying how terrible she looked. He threw them all out and wouldn't let them back into the hospital room until they promised they would track positives with her—that is, call attention to any

slight improvement she showed, congratulate her, and never, never cry or show dismay. Don made a large chart of "healthy behaviors" that he put up on the wall and recorded her recovery. The nurses got so interested that they started adding their own comments to the chart. The doctor was amazed, because her cardiac system was in terrible shape; he said it was her "will to live" that pulled her through. Don was sure that this so-called "will" had been operantly conditioned.

In about three weeks, Don's mother had improved sufficiently that she wanted to go home. The doctor insisted the increased strain would kill her; she insisted that she preferred to die in her own home. The doctor said she would never walk again; it took all of two weeks to prove him wrong.

Don Barnicki's story has a bitter-sweet ending, for his mother died a month or so afterwards. But as the doctor said, not even B. F. Skinner could have conditioned her heart back into health. To Don, however, the operation really was a success of sorts. His mother had almost two months more of life than anyone had expected, and they were perhaps the happiest she had ever known. Because, for the first time, everyone around her was expressing nothing but love and happiness.

Because operant technology can be used to influence bodily as well as behavioral processes, we should soon be able to improve our standards of health considerably. Last fall, a group of chaplains in our own Medical School asked if we might help them learn something about behavior modification. They had come to the remarkable conclusion that it just might be part of a chaplain's job to condition or "shape" hopeful, positive behavioral responses in those patients who asked their help and guidance. Students from the lab course are now working individually with the chaplains. To my amazement, once the chaplains have mastered the shaping techniques, they want to run an experiment. They hope to apply behavioral technology in one hospital ward, while keeping to their older methods in a control ward. Then, they plan to compare the medical progress the patients in the two wards make. If the chaplains can demonstrate scientifically the usefulness of "conditioned hope," perhaps B. F. Skinner will be declared "a saint" some day in the future.

If we live that long. For this afternoon, Professor Skinner has worried openly about our ability to survive. Will the world be swallowed by its own pollution, or destroyed by senseless war? Are we presently so hooked on momentary pleasures that we no longer are capable of working toward long-range survival? Perhaps I am a little more optimistic than Professor Skinner is. In the past three years, we have sent several hundred undergraduates out to field placements. More than 90% of them have been able to help their clients achieve significant behavioral change. Our students have succeeded for several reasons: First, because they worked towards measurable goals. Second, because they were able to develop monitoring systems that gave their clients instantaneous feedback on their actual performances. Third, because our students "track positives" rather than criticize. And, fourth, because the social approval our students give helps their clients learn to delay immediate urges and encourages them to work toward long-range, socially-useful goals instead.

Now, I ask you, couldn't we use this same technology to help solve the problems of pollution and poverty and warfare? True, we need to restate these problems in terms of measurable, achievable goals. And we create subtle but effective ways of feeding back to each person involved the actual effects of his or her own actions. But we already have a cadre of trained students who are eager to try their hands at just this sort of work, because they have discovered that making the world a better place can be at least as rewarding an experience as are drugs, sex and apathy. If we give our students all the support we can, and if they succeed, even in part, we will indeed be free to have a future, and perhaps a better one than we can now imagine. And if we do survive bacause we have learned a new problem-solving technology, we will owe a great debt of gratitude to B.F. Skinner. Thanks for the future, Fred.

responseresponseresponse

by Edward L. Walker
Professor of Psychology
The University of Michigan

A Critique of Skinnerian Controversy

If my ambivalence is showing, that's because it should be. It's almost idiotic to follow James McConnell on any public platform. You can't win! I've admired Professor Skinner for a great many years and have taught and used the principles he has developed almost from the beginning of my academic life. Yet there is no denying that many people have reservations.

It is difficult to be critical of ideas which have been so patently successful and which offer such potential benefits in the world of human affairs. Furthermore, Dr. McConnell has added to the difficulty by classifying criticism as academic gamesmanship and by arguing that criticism should be classed as negative sanctions which are demonstrably ineffective. Nevertheless, as I have pointed out in my introduction, Professor Skinner tends to excite controversy. And nothing that Professor McConnell has said would even hint as to why there is controversy. There is not sufficient time, and besides, I didn't bring my slides, and this is not the appropriate forum for a full, scholarly, gamesmanly development of the alternative points of view.

Yet I feel that the occasion should not be allowed to pass without at least a sketchy outline of some of the issues which sometimes excite other scholars todissent and even anger and acrimony. I should like to point out three areas.

In the first area, Skinner chooses to use language that is taken, by many of his listeners, to mean far more than can be demonstrated. This might be referred to as the irritant of surplus implication. The term "reinforcement," for example, has implications of "permanent fixation" of the behavior, which cannot be demonstrated. The alternative is the term "incentive" which can be demonstrated and which does not contain the irritating surplus implication. Operant procedures are said to produce learning, when, in fact, they only influence performance. The distinction between "learning" and "performance" is regarded as meaningful by most psychologists. Learning sounds like irreversible change. Performance is reversible.

It is difficult to be critical of ideas which have been so patently successful and which offer such potential benefits in the world of human affairs... Yet I feel that the occasion should not be allowed to pass without at least a sketchy outline of the issues which sometimes excite other scholars to dissent and even anger and acrimony.

Reinforcement's demonstrable effect would be its influence on the behavior. In lieu of an elaborate argument, let me read to you two sentences which, to me, mean almost the same thing—one in Professor Skinner's language and one in an alternative language. In Professor Skinner's language one might say the behavior of a subject is controlled by reinforcement. In an alternative language one might say the behavioral performance of a person can be influenced by consent. Many people feel distinctly uncomfortable with Professor Skinner's language, especially when they contemplate its being applied to themselves rather than to a prisoner or an inmate of a mental institution. The second sentence has a very comfortable and non-threatening feeling about it and it accomplishes just as much as the first.

The second area that produces the controversy that sometimes surrounds Professor Skinner arises because of the position he has, or appears to take, on metaphysical epistemological issues. He has consistently adopted a position of scientific determinism, and he appears to believe in a mind/body dualism. Alternatives to these Seventeenth Century allusions are scientific probabilism and a strict and universal empiricism. Scientific probabilism and universal empiricism are, in fact, the actual operating bases for modern psychology and probably

most physics as well. The consequences of choice between these alternative positions is not trivial. For example, in scientific probabilism the meaning of the word"control" is severely restricted in its implication and is no longer frightening. Furthermore, in a strict empiricism, many human issues such as freedom and dignity are in no way excluded although they appear to be in a dualistic and deterministic universe.

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A third source of controversy is less easy to define and to deal with. If Skinner has a very pessimistic view of human nature, it is an implication of the well-worn phrase, "operative control of human behavior." For behavior to be normal and rational and addressed to long-term contingencies it must be controlled by an external agent. Behavior that is freely emitted without some all-knowing external constraint will inevitably be addressed to immediate gratification and ultimately be self-destructive. It is a cliché of criticism by now to note that Professor Skinner has never provided us with a solution to the problem of who is to exercise this operant control over our behavior, except for Frazier. And Frazier is, of course, a ficticious character. It is an implication of the message that he has just given us that Professor Skinner is almost an advocate of a very strong government in the hands of appropriately conditioned leaders and that the conditioning process be in the hands of social scientists.

It is a cliché of criticism by now to note that Professor Skinner has never provided us with a solution to the problem of who is to exercise this operant control over our behavior, except for Frazier...It is an implication of the message that he has given us that Professor Skinner is almost an advocate of a very strong government in the hands of appropriately conditioned leaders and that the conditioning process be in the hands of social scientists.

I personally am much more optimistic about human nature. I believe that behavior can be influenced by incentives but not controlled by reinforcement. I believe in a paternalistic universe, not a determined one. I have faith in our people as a source of all knowledge. I believe in weak government rather than strong government. As a social scientist, I would not choose social scientists to be in control. If it has to be anyone, I would choose the humans. Finaily, I believe that we cannot afford to suppress human freedom and dignity and I am optimistic enough to believe that we are free to have a future.

responseresponseresponse

B. F. Skinner

Concluding Comments and Counter-Arguments

I'm sorry to have to tell you this, but Professor McConnell's remarks were so reinforcing that I must now give the lecture over again. Professor Walker brought up some technical problems in the analysis of behavior which I don't believe we could possibly carry through to any reasonable conclusion in a gathering of this kind, but I did want to contribute one fact. I challenged this distinction between learning and performance in a paper that I gave nearly 20 or 25 years ago called, "Are Theories of Learning Necessary?" I argued that it is only because we are so disappointed in our performance data that we find it necessary to invent a learning process that we hope will behave in a more reasonable way. Edward Coleman was in the audience and he came up to me and whispered in my ear, "You son of a gun." Well, I don't know whether that meant he was accepting my distinction or not.

As to the other issues, I don't know why people say I have never tried to answer the question of who is to control. The last three chapters of *Beyond Freedom and Dignity* are on that subject. And I have said again and again that when you say who is going to control you don't expect a proper name, nor do you even expect the kind of person who is going to control. Control exists. We are, whether we like it or not, being controlled by the world in which we live. If that world is allowed to remain a series of accidents, then we are going to have the situation we have now. But it is possible, I think, to improve it so that that world will control us in different ways; it will be the control exerted by our social environment. There will be teachers who will teach more effectively, there will be psychotherapists who will be more successful, there will be governors who will learn how to govern people effectively. The same people will be doing these things who are doing them now, except they will be doing them more effectively. To argue that somehow, because a social scientist can give these people advice, he will then step in to control is like arguing that because people can tell you how to build a bridge, they will be the people who will build it or who will decide whether it is to be built at all.

You have specialists who can tell you about behavioral processes and if you happen to be in a field in which they are involved, you should listen to them. And that is what I see. I am not saying that I am proposing to control any more than I have tried to do here today or the control Porfessor Walker is trying to exert on you in opposition.

As to freedom and dignity, I think the appeal he made that evoked such approving applause from you is precisely the reason we are in such trouble. It is so easy to make a case for those things that appeal to us. We like to be told that we are worth something, that we have achieved things and that it is ourselves who should take credit. We don't want to recognize the fact that we have achieved. In the first place, we have a genetic endowment—millions and millions of organisms that evolved to give us our endowment today. We don't want to accept the fact that our family, our school, our religion, our work, our acquaintances, our peers, and so on have all contributed to what we do. We would rather take credit for ourselves and speak of our own work. When someone comes along and says "Well, let's check a minute; let's see whether you really do that," obviously, we reject that.

The same thing is true of freedom. We like to believe that we are free and we do behave in ways in which we feel free some of the time. But the feeling of freedom is quite different from the fact of freedom, from control, and to be told that you are not really free is the same as an insult. Anyone who says, as I have said, that there is something beyond freedom and dignity is not likely to be listened to or to be arugued with cogently.

But there is something beyond freedom and dignity and that is the ultimate future of mankind. I believe that our present concepts of freedom and dignity are standing in the way of the kinds of progress which simply must be

made. I believe that I am an optimist also; I certainly have remained optimistic about some principles in the face of a great deal of criticism and I think that is going to go on. I believe we will solve these problems but I am very much concerned about the things that may stand between us and solutions. It doesn't matter very much to me personally whether the culture of the future, or for that matter, the genetics of the future, turn out to be Chinese rather than the mixture that we have in America. But I am concerned about the future of mankind. And whether or not we are making a contribution with the Chinese is the kind of thing I think is worth asking. And we can only ask it if, instead of engaging in jingoistic competition between nations and cultures, we look to the kinds of behavioral processes that are having an effect on us. If we develop in such a manner, the effect will be better not only for us now, but for the world in the future.

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Printout

A Focused Look at the ERIC Data Base

Instead of concentrating on multidimensional, world-view predictions about the future, this Printout will cover some articles by counselors, specifically about the future of counseling. Several commentaries are taken from the June, 1972, issue of *Canadian Counsellor*. This issue is devoted to short essays predicting the future for counseling; this stimulating "survey" of prophecies provides an atmosphere in which to do some future-thinking of your own.

John L. Maes ("The Cloudy Crystal Ball: A Projection of the Nature of the University Counseling Center in the Year 2000") sees two major poles creating tension as we move into the future: the need for aloneness, the restorative power of solitude, pitted against increasing density, complexity and stress. We need a density-related ethics, he maintains, to solve problems of dwindling resources and crowded conditions. This will demand of the counselor less passive roles and more awareness touching down on diverse knowledges. Maes sees the university counseling service of 2000 as a loose and flexible consortium of professionals. Team approaches to specific problems will be backed by stable centers for research, information, therapy, etc. He concludes with a theory of Chardin's: that nature is moving toward greater levels of complexity and consciousness. The counselor's problem, then, may involve helping the individual consciousness to profit from and live with that complexity.

So, the future will be very strained, but its power should arise from that tension. Wes Penner and Al Riediger think that the counselor will be a mediator between the individual and society, taking an important part—that of direct intervention into social systems—in the complexity of social functions. They can be involved in "the creation of a synergistic society which will accurately correspond to the limitations and potential of the individual."

Yet "The Future Lies Open" according to E. G. Williamson. After reviewing the counseling field's development over the years, however, he conjectures that the next revolutionary change in student personnel work may involve the nature of value commitments as behavior sources. Don't we have some moral responsibility to awaken young and older persons to their uncultivated potential? But, he asks, how can we induce such commitments without imposing our own preferences upon the individual sphere?

Other future forecasters ask whether there will be a future at all for counseling. In "Death of the Counselor" R. W. Oberheide and N. W. Garlie take an obviously pessimistic attitude. The authors think that, apparently, the counseling profession has failed to achieve its ideals, that accountability will make the already intangible functions of the counselor less legitimate, that the counselor cannot survive on simple ideals. They suggest, instead, more "reality therapy" to shock the profession out of its inertia.

Ralph Berdie ("The 1980 Counselor: Applied Behavioral Scientist") has a similar opinion—there may be no future—but offers a positive solution: that counseling will and should be replaced by "applied behavioral science," a discipline that will utilize theory and research derived from the behavioral sciences to help individuals and institutions achieve their purposes. Counselors complain that there is too much theory and too little practice in their training. Berdie thinks there isn't enough. What is called "theory" he says, is really "speculation, discussion, and rationalization." The present counselor needs more theory— ideas and concepts— to understand diverse problems and the approaches to their solution. He goes on to outline some areas of behavioral science that would be useful for counseling.

Paul Bardy ("The Beyond: The Counsellor in Fifteen Years") disagrees with all of the above. If there is any such thing as a counselor at all in a future where the emphasis has shifted from work to leisure, that person will be an ECSTASY COUNSELLOR! By this, Brady means a person "who will influence people to experience ecstasy by the way they *are* in the world." The ecstasy counselor will be able to laugh, dance, and sing freely and will emit a harmonious vibrational rate. Brady even supplies a descriptive poem, part of which goes:

> All in all and here in now
> He'll have taught you how to die
> To be reborn in your own mind's eye.

Finally, in "By Then I'll Be Even More Confused," Donald C. Fair—writing from his sabbatical on the Pacific Coast near San Diego—responds that he doesn't know or, in some ways, care about his future as a counselor. Instead, he shares with the reader some of his present desires and "don't-wants": "I'm tired and discouraged with being a critical person in a critical world. . .I want to learn to live more comfortably and expectantly with tentativeness, uncertainty and change. . .I want to be more responsive to the now, and not continue to be attached too deeply to either the past or the future. All I have is the now. I keep avoiding the now so much. As I avoid it, it becomes the past and is no longer available to me. In the meantime part of the future has become the present, and I'm not in it either! Where am I?. . .Will you come walk with me in the fog?"

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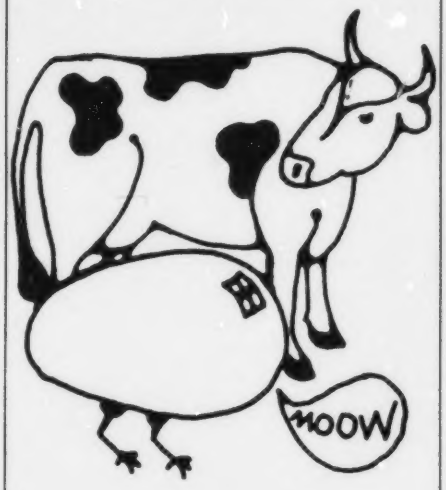
More to Come

The burgeoning field of futuristics continues to expand—so we'll be bringing you more materials on the future in subsequent issues of *Impact*. More conference materials and presentations, more resources for developing futuristic courses and planning activities. Watch *Impact* for more fully futurizing forecasts as well!

Flashes

...Why does a newly hatched duckling come running when the mother duck calls and ignore other animals in the barnyard? Because it gets instructions from the mother duck while still inside the egg, answer Gilbert Gottlieb and Marieta B. Heaton of the Department of Mental Health in Raleigh, N.C. (*Science News*, October 21, 1972). Five days before the duck is hatched, it begins to move around in response to its mother's call. Then a few days later the unhatched duckling begins to make high-pitched noises of its own in answer to its mother. The embryonic training appears to prepare the duckling for quick response to the mother's quacking after it breaks through the eggshell and enters the outside world. If the embryo is isolated from the mother's and other vocal stimuli four or five days before hatching, the newborn ducks are far more likely to ignore the mother's call and may even respond to the cries of other animals...



...The microfilm industry has achieved a remarkable growth rate in the past few years because of its ability to take full advantage of technological innovations; future growth is assured, particularly with in-house micro-publishing, because of the mounting need for data storage, ready access, operational economies, according to articles on the subject in the *Reproductions Review and Methods*...

...Nine million tons of salt a year—used to keep winter roads looking like summer—is being carried into our streams, lakes and reservoirs. In 63 Massachusetts communities, the sodium content of drinking water is above 20 ppm, the maximum safe level for heart patients. A record is held, however, by the Meadow Brook (River) in Syracuse, New York, where the salt concentration was 10,650 ppm in December, 1968...

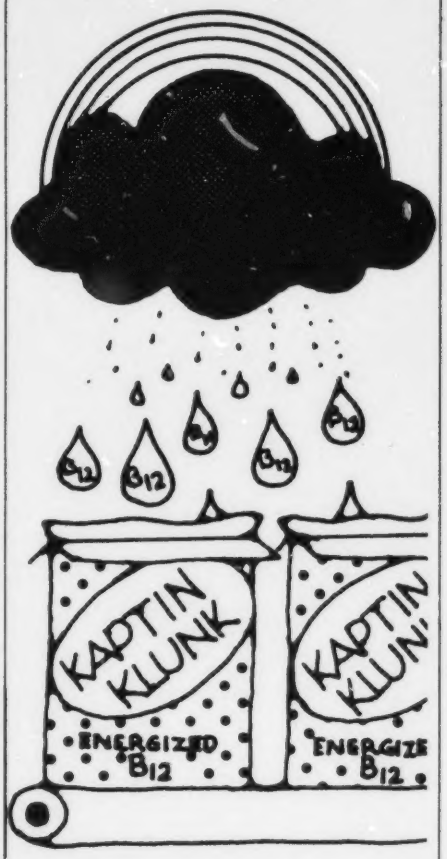
...Derro Evans' studies of the 4-day workweek at a printing plant in the Dallas area uncovered a strange fact. Many employees found that an increase in leisure time resulted in a decrease of money. To "fill the void," workers took up expensive hobbies or just spent more money in general. Plant president Cecil Ussery, commenting on the disadvantages of the shortened week, said that many workers simply can't afford it...

...At Marks & Spencer, an English department store chain, staff benefits have increased to the point that the firm has been called "Marks and Spencer's private welfare state." This "Marksist approach to staff relations," as one writer calls it, provides morning coffee, a substantial lunch and afternoon tea for only about a quarter. Shopgirls may have their hair done on the premises for 75 cents and have their lunch served to them on a tray, and for another 30 cents a chiropodist will treat tired feet at the same time.

Doctors are on hand at all stores and there are semi-annual dental checkups free, as well as regular cervical cytology tests for cancer in women. A welfare committee looks after staff members' personal problems; an unmarried girl supporting her mother had a baby and was paid full wages for two years while she stayed home. The committee visits all of the pensioners of the company, insisting that oldtimers come around to the store occasionally to say hello. Although at last count there were 37,557 employees involved, the firm strongly clings to the idea of a small, happy family as its ideal. Its women personnel managers are supposed to be surrogate mothers for the staff, who handle problems for 12 million customers every week.

Salespeople have the use of a luxurious shower room, refrigerators and lockers, and the regular variety of free activities includes a River Thames boat trip with a buffet, bar and dancing; table tennis tourneys; bowling nights; tap-dancing lessons; and concert tickets. Wages run two and a half dollars or so above average weekly pay in England, and after two years there's a month's bonus pay every Christmas. The upshot is that M&S has the lowest employe turnover in the trade, a fact that saves about as much money in training new people as the benefits cost...

...To obtain a healthy dose of Vitamin B_{12}, stand in the rain with your mouth open for 10 minutes. Bruce Parker, a botanist at Washington University, St. Louis, who discovered B_{12} several years ago in rain water, believes it comes from microorganisms washed from the air. As far as known, only such microorganisms can produce their own Vitamin B_{12}. Wash your hair while you're waiting...



...Since May 1, 1973, Quaker Oats Company is also an educational institution. They have introduced a learning program for young children which appears on Life cereal boxes. The program includes six lessons designed to increase the learning power of children...

...Students in elementary, junior and senior high schools in America did at least as well as and in many cases better than their counterparts in the schools of 19 other nations on science, reading comprehension, and literature Achievement Tests. The tests were given on a worldwide basis by the IEA—International Assn. for the Evaluation of Educational Achievement. The testing involved some 258,000 students in 8,700 schools in 20 nations. United States headquarters for the study is Columbia University's graduate school of education...

...The Carnegie Commission on Higher Education, summarizing the changes forseen in its report, *New Students and New Places*, stated that by 1980 the nation will need between 80 and 125 new "comprehensive" public four-year colleges, 60 to 70 of them in large metropolitan areas. We will also need an additional 175 to 235 two-year community colleges, 80 to 125 of them in urban areas. But the U.S. will need no new doctorate-granting universities, and none should be founded...

...Most adults want to learn more about something—but they don't particularly want to go to school to do so, according to the Commission on Non-Traditional Study. The 26-member commission, funded by the Carnegie Corporation, says that adults have an enormous—but unmet—appetite for more education. The commission's research found that three-fourths of all U.S. adults between the ages of 18 and 60 (some 80 million persons) said they want to learn more about something. And one-third of all adults (32 million persons) said they had enrolled during the previous year in some type of learning activity. However, most adults favored non-university atmospheres, preferring classes in high schools, free schools or community colleges instead. To provide greater opportunities for non-traditional study, the commission proposes that all high school graduates be given financial credit that they could use for college immediately or defer for use later, that colleges change their emphasis and that new agencies be created to provide greater access to information, emphasizing programming for cable television, videotape recordings, and satellite broadcasting...

...Artificial chemical food additives may trigger symptoms of extreme hyperactivity and learning disorders in school children, stated noted allergist Ben F. Feingold. Working with 25 hyperactive San Francisco school children, Feingold found that after a few weeks of dietary control (no processed foods) 15 showed dramatic improvement. "We can turn these kids on and off at will," Feingold noted, "just by regulating their diet."...

...The brain-wave patterns of hibernating bats is very similar to that of humans with *petit mal* epilepsy. Researchers at the University of Michigan and Temple University are searching for further relationships which can be useful in stopping epileptic attacks. Conversely, these studies may enable space researchers to use hibernation as a means of transporting astronauts on long space journeys...

...One of the symbols of affluence, air conditioning, may change the seasons of the body. Rene Dubos, Rockefeller University, notes that the normal daily and yearly cycles of the human body are affected by seasonal temperatures. Tampering with these may change hormonal activity and other factors. Furthermore, a new form of respiratory ailment, which resembles asthma, has been linked to air conditioning...

...The earth has eleven moons, one big one and 10 small ones. According to John Bagby, Hughes Aircraft Co., each of the small moons has a diameter of 100 feet. Even more surprising: when projected back into time, the orbits of the small moons converge at the same point on Dec. 18, 1955. Therefore, the small moons may be fragments of a single moon which exploded on that day. Photographic evidence of at least two of the small moons exists, as well as mathematical evidence relating to orbits of artificial satellites...

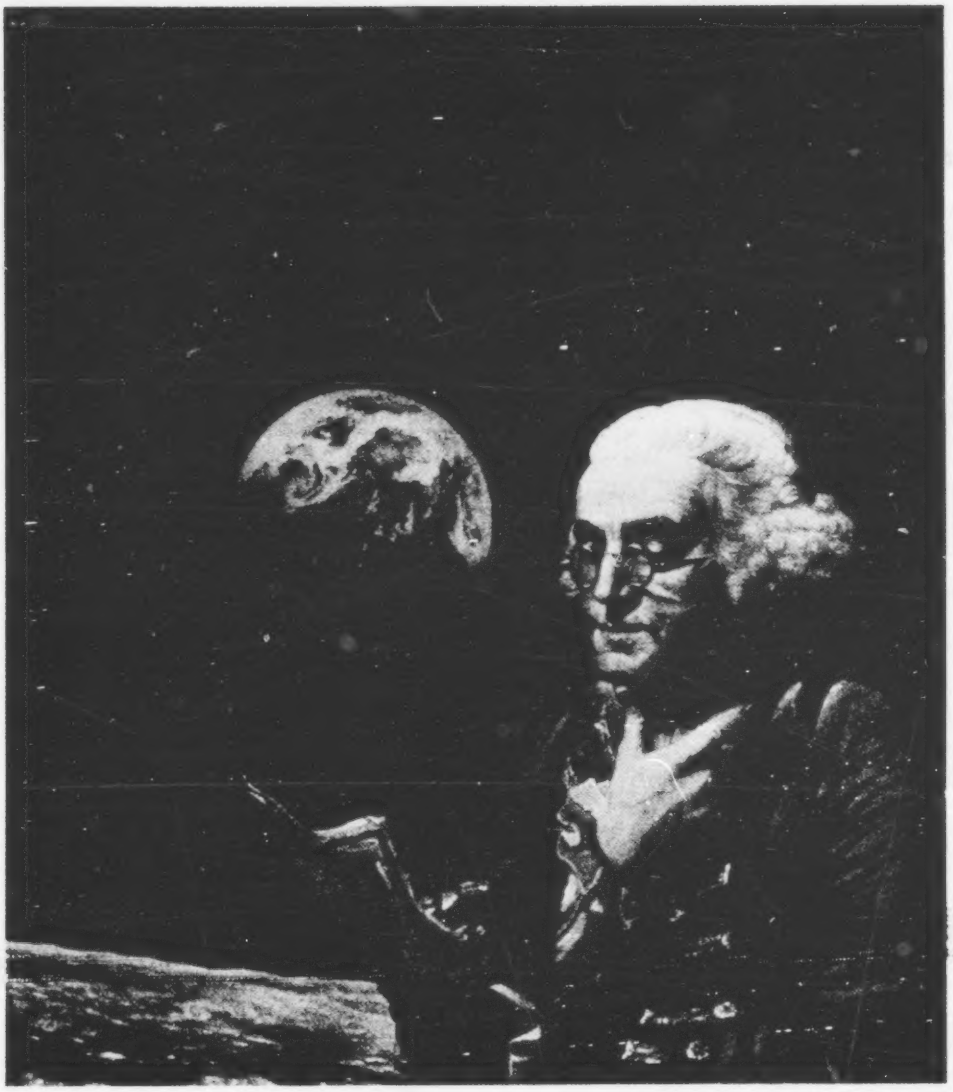
...Although Saudi Arabian women still wear veils and probably never heard of the women's liberation movement, there are signs that the veils could be lifted. The University of Riyadh permitted a public graduation of women students for the first time this year, even though male instructors are only allowed in women's classrooms through the modern miracle of closed circuit television...

Editorial Note

Impact frequently reprints statements that represent provocative, if not extreme, views as a means of sensitizing our readers to important issues or developments relevant to the work of those with helping responsibilities. Occasionally these statements may seem to some to contain political references or have political connotations. We wish to emphasize that neither by design nor intent does *Impact* take stands on political issues or questions or evaluate political figures. The basis for inclusion of items is determined solely upon the utility of the information for the performance of professional responsibilities and activities and any attempt to draw inferences regarding political views is inappropriate and unwarranted.

Errata

The answer to question 4, part D on page 27 of *Impact*, Vol. 2, Nos. 4 & 5, is not "c" but "e" (all of the above).



A Bill of Futuristics

Life/Career Planning and the Human Services

The following article was first presented as a speech at the APGA/Impact Workshop on Career Guidance and Career Development, June, 1973. It offers not only an overview of trends in occupational areas but the human perspectives and the delivery of professional services that will be necessary in the decades ahead.

by Garry R. Walz

This is not an attempt to zero in on specifics, but to paint, with broad brush strokes, some futuristics— considerations of what some people are saying the future might be like and its implications for counselors, educators and others who work with people.

We now have a number of centers around the country devoted to research in futuristics. They are involved in acquiring data to project the future, both technologically and sociologically. They try to develop conceptual models of the future that have some depth and meaning and to test their models as more data becomes available. I have searched the literature these centers are generating and hope to extend and augment current conceptions of the future by adding to them ones that I have been able to obtain.

Recently, several national futuristics organizations came together, using the Delphi technique, which is essentially a special way of asking questions and sorting out answers, to get some indications of important future

trends and developments and their implications. The organizations selected individuals who had shown intense involvement in assessments and evaluations—the futurists. Thirteen of the 14 futurists were male. Now what does that mean? It may mean that the projections we have are those of men talking about the future or men talking about "man's world." It may mean that one seldom sees women at the science fiction counter at newsstands. It may mean that women have a greater responsiveness to the here and now. But we should be sensitive to the fact that most of the futuristic predictions, most of the imaging that occurs, is a very heavily male oriented activity.

Let me present, in a very kaleidoscopic way, some of the images people share about the future. Then we can look at their implications and determine where we might go from there.

The ideal life will not be marriage, children and a house in the suburbs, but rather the experiencing of a series of deep and fulfilling relationships in a variety of environments.

We cannot expect permanency in the relationships of men and women in a very impermanent world. Up to a point, a man and a woman may contribute to each other's growth, but at a certain juncture, they may grow apart, and it should occur with diminished guilt, trauma and depression.

Biological developments that will extend the capacity for copulation will mean that "the sex derby" will become a universal institution with an increasingly marked tendency for men and women to make the bedchamber their permanent abode.

There is an increasing relationship between work and self-development. People are motivated not for higher positions, more money, or status, but what does an occupation contribute to one's personhood?

Americans in general continue to hold positive attitudes about life in the United States. The change which has occurred in the last decade is that Americans, along with the continued positive beliefs, are expressing increasing numbers of negative beliefs and concerns and anxieties about the lives they are leading.

Today's adolescents, unlike the popular concept of a group of individuals who are highly idealistic and imaginative, are, in fact, when extensively researched on the question, found to be highly realistic, pragmatic, and concerned for that which works. If they are to be faulted in any direction, it is that they have a cynical concern for that which will work and will bring results, rather than to deal with ideals or creative futures or possibilities.

The majority of present-day Americans are probably not constitutionally suited to accommodate rapid change and mobility. Those who do not welcome such rapid change suffer from future shock.

People who are highly mobile, and this increasingly includes a majority of our population, grow accustomed to making and breaking relationships. Such activity, while increasing one's freedom, still can lead to a loss of commitment to people, to things, to places, and to values. Present trends indicate that most relationships will become more and more temporary, conditional, and modular. It is no longer sufficient for Johnny to understand the past; it is not even enough for him to understand the present, for the here and now environment will soon vanish. Johnny must learn to anticipate the. . .directions and rate of change. He must, to put it technically, learn to make repeated, probabilistic, increasingly long-range assumptions about the future. And so must Johnny's teachers and counselors.

The amount of money earned that a person has to spend by his own discretionary decisions on improving the quality of his life—travel, self-improvement, education, recreation, etc.—will increase by over 50 percent between 1970 and 1980.

These are some of the images of our future that present-day researchers and thinkers are offering. I think the implications of these quotations might best be drawn by doing an exercise. On a sheet of paper write, from the top down, five times, "I am." And then, within the next minute, complete each of those incomplete sentences. Do not spend a lot of time deliberating on it; use the gut-level feeling that comes to you.

Basically there are two ways of responding to this exercise. First, there is a response that speaks of the institutionalized roles one has as an individual—I am a father, I am a counselor, I am a teacher, I am a husband, I am a voter. A second group of responses deals more with self-perceptions of feeling states—I am happy, I am tired, I am bored, I am pleased, I am ready to go. These responses deal with feeling states, with how one approaches self and world on a sensual, emotional basis. Tally up the number of responses you have in each of these two categories.

This exercise is an excerpt from a larger test for which longitudinal research has been going on for several decades. Over the years this research has been directed at people's major societal reference points. The results have been most interesting. Before the last decade or so, people tended toward predominantly institutionalized role responses, that gave them status, identity and position. But within the last decade or two, there has been a shift—most dramatic among students, but pervasive throughout our population—toward completing "I am" statements, which express feelings and perceptions of self as a person and as a being in interpersonal relationships. Becoming evident is a movement away from occupational involvement and status toward the perceptions of selfhood and personhood. People are evincing increasing concern about what occupation, work and education mean to them in terms of how they perceive and respond to themselves; and what work and education do to provide them with a view of how they react to others.

There are several ways that we can look at this basic development. As Donald Super suggests, we are evolving into a society in which we must give attention not just to occupations but to the roles that individuals will play. The relationships between those roles are becoming less distinct. Individuals will play a variety of roles, and the differences between various activities will blur. Certainly some women have changed dramatically the roles they traditionally played. Perhaps what we need is a measuring instrument that deals not only with occupational interests, but also an inventory that would help identify interest in playing different roles. As we move to a new

economic base and change our society in terms of opportunities and involvements, the increasingly critical questions will concern the roles individuals want to play. People will develop a wider range of opportunities and choices, and they will move back and forth between roles. The "I ams" represent a group of self-references that play an increasingly important part in the decision-making individuals go through with regard to what it is they do, how they feel about it, what kind of identity they have, and what it is they expect from the future.

There are things that we as counselors and educators should be doing if we are to be responsive to the population's emerging concern about the intertwining of occupations, roles, and perceptions of self. I propose a seven-plank "Bill of Futuristics." Each of the planks represents not something inventive, in the sense of never having existed before, but in the sense of being new and only partly disseminated. The suggestions are brief, but for each of these there are back-up resources and research. For each proposal there are programs, thrusts, and activities which, even in the early stages, show promise and interest.

First, it will be important to work with individuals to help them develop the adaptive attitudinal structure necessary for dealing with life. Most people would need to think twice when asked, "What are your primary values? What is organizing your life and has particular meaning?" It is particularly difficult for students to develop a basic attitude structure around which to orient their lives; they live in a dualistic world of institutional ethics and changing values. Out of this has grown alienation, anxiety, and waning desire to become an involved participant. It is easy to mouth panaceas, to say, "Yes, be optimistic." Yet, the only way to deal with this chameleon world is to be optimistic. Pessimism leads to a maladaptive lack of response, withdrawal and alienation. Yet how can people be optimistic about things when they are uncertain, when many future events are depicted as undesirable or even dreadful?

Individuals who are impactful and involved are developing an attitude of "I am fully committed, but half sure. I am committed to action, experimentation, involvement; but I am not sure I have the right answer or that this is the route to go. I am committed to act, explore, develop, but I am also prepared to change my views based on the results of that action."Coleman reflects this attitude when he talks about an action-rich curriculum. Technology can deliver the information we have accumulated, but it is this attitude of wanting to act upon it, of behaving and exploring in an experimental way, of holding in abeyance the final judgment, that is so important. Many young people and increasing numbers of adults are beginning to adopt this attitude. It is an attitude that enables people to deal with the stifling, negativistic future shock of which Toffler speaks. So, the first step in implementing our Bill of Futuristics, is to develop a fully committed, but half sure, attitude toward our values, life, and actions.

A second plank can be called, simply, "positivism." Remember the Johnny Mercer-Bing Crosby recording of "Accentuate the positive, eliminate the negative?" The song is many years old, but massive research favors learning that occurs as a result of positive reinforcement as opposed to learning based on aversive, disciplinary or punishment conditioning. We have a mandate in terms of how to structure learning and the nature and kind of interpersonal relationships to provide. It is even more important that we help the person develop some images

of his or her potentiality. People often find it difficult to image potentialities above and beyond their immediate experiences and environments: people downgrade their potentialities as a result of their social imprinting. Perhaps what a counselor can do to prepare someone most effectively for the future is to help that individual sketch some vistas of his potentiality. To cite an example—in a North Dakota research project, teachers acted toward all students as if they were bright and would and could achieve. The students responded to this image of themselves; they saw themselves differently and behaved in ways they never had before. Positivism can help children realize abilities which tests and grades had ignored or which parents hadn't realized existed.

Third, I propose formal training in futuristics. We have good evidence to show that such training is a pay-off proposition. A number of high school and college programs throughout the country now include courses in futurisitics. Young people and adults are learning technological and social forecasting, methods of probability judgment, problem-solving, and conflict resolution. The courses present procedures, processes, and information necessary for making decisions in relation to the future. Sutdent response has been excellent. They relate their own thinking and planning to the future they are creating. I encourage individuals who wish to do work in this subject area to consult the resources available in ERIC. Perhaps as Adelson suggests, our social imprinting has caused young people to be neither highly idealistic nor imaginative. But when given the opportunity, students respond very positively to being involved in the forecasting, shaping and consideration of the future.

A fourth plank of the Bill of Futuristics pertains to knowledge utilization. Coleman comments that when we had little red schoolhouses it was vital that schools play the role of the information-rich institution. Mobility was limited; opportunities for contact with the outside world were scarce. Individuals needed schools to broaden their perspectives, to gain information not available in their immediate environment. But this has changed. We have new methods of information dissemination. Our vast capacity for cybernetics enables machines to communicate with machines. We already have far more telephone lines connecting machine to machine than human to human. How can we provide action-rich experiences with emphasis not on acquiring more information, but on dealing with it, applying it in problem situations?

While president of APGA, I attended the White House Conference on Youth, a conference for and managed by youth. Task forces were asked to develop statements of how they felt about the future and how to deal with national priorities. Two distinct group approaches became clear. One group excluded all adult interaction or intervention. The other group assumed responsibility, but they were willing to use adults and experts to achieve their goals. This latter group interviewed the US Representatives and Senators who were there; they consulted the vast variety of human resources at the conference as well as making long distance calls to some of the country's national dissemination laboratories. When the groups made their presentations, several students near me commented, "You can really tell the difference between those who tried to go it alone and those who used adults as consultants and profited from their experience."

In the future, counselors will have increasing potential as cross-generational consultants. Their function will not be to "lay it on" or say, "This is it," but to work with young people to determine how to bring about change, or to acquire information, to forsee what probabilities or outcomes could result from that information. They will assist young people in writing proposals to fund activities they want to carry out.

The fourth plank of the Bill is, basically, to help people realize that the problem is not one of acquiring information but learning what questions need to be asked. Computers can provide information *ad nauseum;* the skill lies in how one intervenes and inquires into this mass of information. We have to prepare individuals to interface in a productive, meaningful way with the informational resources we have.

Fifth, we need to develop a new art, what I call "the art of instant intimacy." Clearly Toffler is right in saying that in the future we will not have all the continuing, linear relationships that we have had in the past. We are living in a society of increasingly temporary relationships. We are moving toward *ad hoc* organizational groups, toward spontaneous task force methods of bringing people together. Even in the most intimate relationships, such as marriage and family life, we are experiencing new patterns; and these are increasingly limited in terms of time. Research shows that in this country the average married couple communicates directly only 27 minutes per week. The divorce rate in the United States moves ever closer to one divorce for every two marriages. We see a pattern of people having to find ways to develop more effective, meaningful, and directly interactive instant intimacies.

Two psychiatrists have written a book called, *The First Four Minutes.* The book examines the initial four minutes of contact as the crucial part of any relationship. Such views are leading to skill-training in hastening relatability. Herman Otto is developing a series of intimacy seminars to help people relate and communicate across the barriers that have interfered with their ability to establish relationships forthrightly, directly, and quickly. Increasingly, counselors will be involved in designing experiences that make it easier for people to engage in direct and quickly-formed relationships with one another.

The sixth plank I call the "greening of occupations and careers." As we prepare individuals to explore and enter the world of work, we need not to accept what is but to devise a different set of rules. We want young people, as in Reich's *Greening of America,* to go out there and say, "that's not alright." Paralleling this are the changes we need to effect in our institutional life and in the kinds of involvements and interactions we pursue on the job. We need a new sense of priorities. One way individuals institute priorities is by acting as internal change agents, by working within organizations of which they are members. When over three-fourths of the Law School graduates of some universities enter public service and state their major goal as bringing about changes in institutions, rather than service to private clients, we have an example of this. Minority members illustrate this when they accept jobs and say, "I am not going to be a token. I am going to work for greater opportunities and involvements for all people; I want to work to humanize this occupation." The class-action discrimination suits

brought by young people against employers provide another example of this mode of change. It is not a matter of having a job; it is doing a job—not only for oneself, but for our society.

The final plank in the Bill of Futuristics is the guidance report. Guidance people, working with others in the school, should evaluate such issues as the learning climate of a school, interaction among students, opportunities for and nature of involvements, relationships between students and staff. These are the variables research has shown to affect the learning that students will take from the school, model their behavior by, and act on in future situations. Every year this country has a report on the state of the economy. We have yet to produce any really comprehensive report on the health and welfare of the people, on the quality of life. Ernie Nevison, a past president of the Canadian Guidance and Personnel Assn., has been working on indices of what it is like to be a student in a given kind of school. This is a way of communicating to parents and community, in direct terms, the impact of a school on individual students. And isn't that what it's all about? The guidance report can be a reality if we take the initiative to develop it.

What does all this mean? I think, clearly, the thing most of us are aspiring to, which Frankel says Americans (in contrast to Europeans) most seem to lack, is a viable sense of *identity*. We need a sense of identity to carry around with us in order to organize our life, our values, and our behavior. In his study on equal educational opportunity, Coleman says, "The single most distinguishing factor between those individuals who had had advantaged socio-economic experiences and those who had not. . .was a sense of fate control." In other words, people aren't able to say, "*I am in charge. I can structure my* environment so that what I do will have a direct effect on the outcomes of my life. Because I am in charge I feel good about myself." I call this feeling personal empowerment. Without it, it is difficult or impossible for an individual to have any sense of positive self-regard and worth. With it, an individual is prepared to take all kinds of frustrations and problems and to move forward to change, to personal enhancement.

There are three crucial aspects of this sense of empowerment. First, if a person is going to be empowered, he has to be able to care for people and things and to express that sense of caring. The extent to which our socialization and education have led to a lack of caring, for one another and for ourselves, is remarkable. Milton Mayerhoff points out how difficult caring has become in our society, how vulnerable people are and how frequently they are put down for expressing deep, affective, meaningful caring. Television highlights the extent to which we have institutionalized paranoia in our society. What concerns me is that in the highest circles of our society, people's lack of caring and trust for one another has led them to "bug" each other. This unwillingness to care for people, to commit oneself and to show trust in terms of actions and behavior, is only a reflection of the many problems our society faces. If a person cares and loves, he is highly vulnerable; but unless he cares and expresses that caring, he has no opportunity to experience the real meaning and excitement of life. The one way to empower people is to help them develop the capacity to care. We have much to learn from women in this regard. Due to social imprinting in this country, men do not express feelings; they deal in a more objective manner; this had deterred them as human beings.

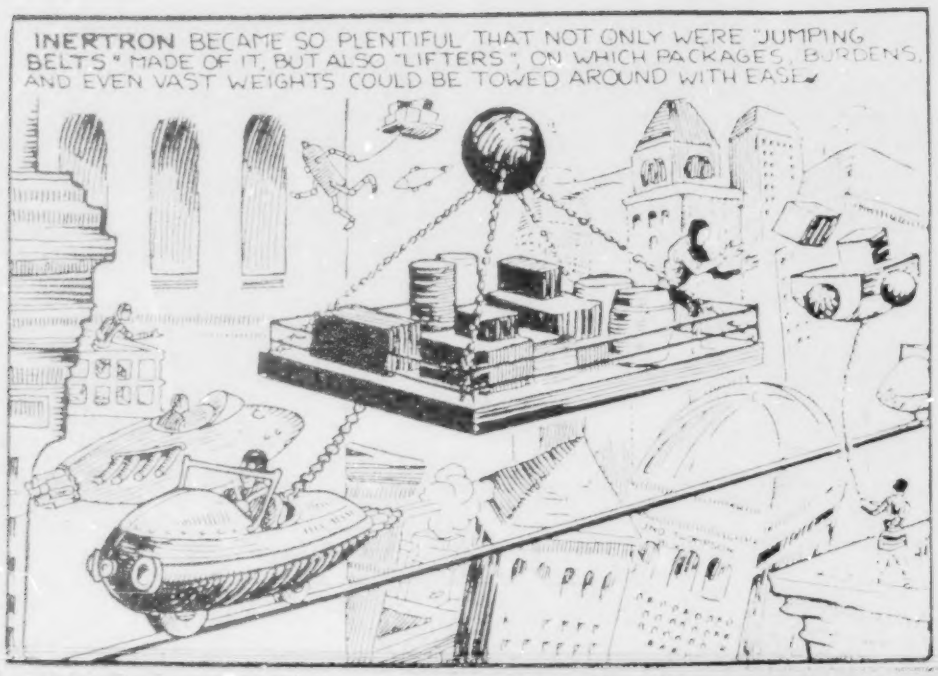
The second facet of this empowerment is knowing. Knowledge is power. We are in a world today where we cannot depend on self discovery. Because of the vastness of events, information and objects, it is nearly impossible to personally experience all we need to be knowledgeable about.

One of the major contributions we can make to anyone's empowerment is our capacity to bring in distilled, synthesized information and to present a range of choices. Some counseling theorists have contended that one should not present occupational information for fear of controlling people's choices. Now we ask, "How can anyone begin to realize the wide, emerging range of options and potentialities unless we present them for exploration, interaction and consideration?" We must provide new ways of presenting information to people; and we need a system for developing procedures to use information, to apply it to self.

Counseling has probably fallen down seriously in helping individuals to incorporate and utilize new insights and behavior on a day-to-day basis. A major challenge we are only beginning to deal with now is recidivism. For alcoholics, fatties, smokers, prisoners etc., the prediction is that individuals, over varying periods of time, will revert to their previous behaviors. The data supporting this inevitable reversion is overwhelming. One message is clear—we have been more interested in immediate change than in persisting change. Maybe we need a new kind of relationship between counselors and students. In a previous era, the Chinese paid their doctors *according to a unique reward system. Doctors received* payment for everyone who was healthy; for each person who became ill, the village docked his pay. Some physicians are saying that in the United States we have an illness profession, not a health profession. Maybe what we have in counseling, and in the helping services in general, is a focus on illness rather than on health — a problems profession rather than a potentials profession. Maybe the reward system and the delivery system are all wrong. These are questions we need to confront.

The third aspect of personal empowerment is doing. How often has Dave Pritchard's analogy, "I drove away because I didn't want to be involved" characterized our behavior? Michaels suggest that one of the major outcomes of technology has been to make people more fragmented, disassociated and isolated within society than anything that has occurred before. Children who grow up in the ghetto frequently experience a keener sense of empowerment than do advantaged children because they know what it means to have to cope, to get out and do. It is time that we defined survival not only in economic terms but in humanistic terms. Unless we develop more effective linkages between people, unless we help individuals get sufficently involved to contribute to and draw from a greater sense of interdependence, the future will not be very bright.

Today is the first day of the rest of our lives. We have the capacity and responsibility to empower ourselves and others. But we need to ratify the Bill of Futuristics, to affirm it and then *proceed* on the realities of optimistic words.


INERTRON BECAME SO PLENTIFUL THAT NOT ONLY WERE "JUMPING BELTS" MADE OF IT, BUT ALSO "LIFTERS", ON WHICH PACKAGES, BURDENS, AND EVEN VAST WEIGHTS COULD BE TOWED AROUND WITH EASE.

Work consists of whatever a body is obliged to do, and Play consists of whatever a body is not obliged to do.

Tom Sawyer

There is dignity in work only when it is work freely accepted.

Albert Camus

Illustrations courtesy Chelsea House Publishers, New York, NY.

WORK FACTS AND FORECASTS

What will work be like in the coming decade, in 1990, by the year 2001? Business and labor analysts, sociologists, manpower statisticians and computer experts, and personnel workers all make different estimates and posit different scenarios of the future of work. But several areas of agreement crop up continually: Leisure will become a major factor around which to plan everyday life. People will have to learn to cope with increasingly complex technology, often requiring machines to communicate with other machines. New work groups or teams will be formed, resulting in greater task sharing and time flexibility. Employee benefits will be much broader in scope, more cognizant of human needs. Diversity, once discouraged, will replace monotony to create results counter to current wisdom on how to increase productivity.

Even today, the seeds of discontent have begun to sprout and a number of industries, particularly those of an assembly line nature, are revising the kinds of work people do and the way they do it. Industrial counselors and specialists in job design and human motivation are in demand—the nature of work is such that it could always be more enjoyable, more freely chosen, less "work."

Thus, *Impact* presents two views of work. First is a contemporary view of predominant problems and innovations just beginning to be used to alleviate these problems. We would like to acknowledge and thank David T. Cook and the *Christian Science Monitor* News Service for this contribution. Second is a futuristically-focused view by contributors from a variety of disciplines writing in the newly published book, *Work and Nonwork in the Year 2001*, edited by Marvin D. Dunnette. Acknowledgement for these comments go to the editor, to the publisher (Brooks/Cole Publishing Co.), and to the contributors: Bernard M. Bass, Glenn L. Bryan, Marvin D. Dunnette, Sidney A. Fine, Leaetta Hough, Emily Mumford, Henry Rosett, and Edward C. Ryterband.

Work Today: Heavy on Discontent

Industry's Unscheduled Day Off

by David T. Cook
(Christian Science Monitor Service)

Some American workers won't have to wait for the next three-day weekend. They will make their own.

"Workers have a right to take an unscheduled day off occasionally," claims Gary Bryner, union president at the Chevrolet Vega plant in Lordstown, Ohio. "You shouldn't have to be sick or hung over."

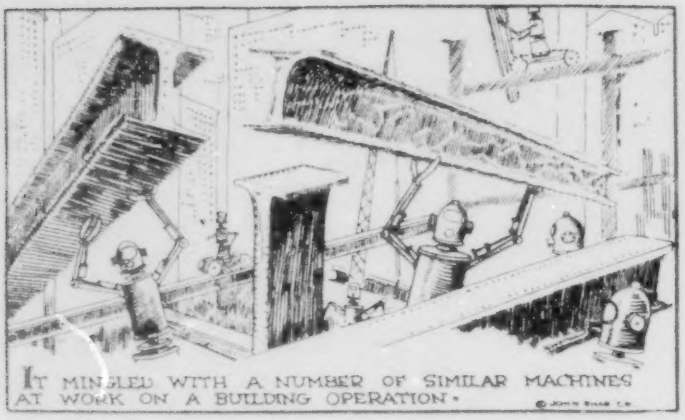
Others agree. On a typical working day some 3.8 million members of the labor force stay home. Some are ill. Others are physically able to report and decide not to.

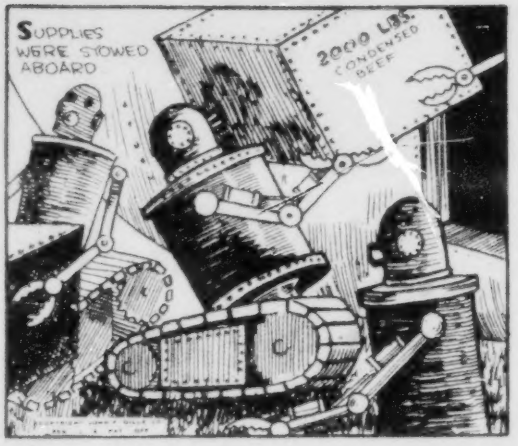
Among the absent there appears to be a fairly large, healthy group exercising the self-proclaimed "right" to a day off. For while remedial programs can cut a company's absenteeism rate to 1.5 per cent, the current rate for the nation as a whole is 4.7 percent.

If the nation's rate dropped to the 1.5 percent level achieved by remedial programs, a typical day would find an additional 2.8 million employees at work rather than at home.

Absenteeism soars across the nation on Friday and Monday and tapers off between Tuesday and Thursday, according to an unpublished Labor Department study. A Ford Motor Company executive reports that on Friday and Monday absenteeism at his firm is "double or triple the normal (5.2 percent) rate in some plants."

Unauthorized minivacations make production scheduling difficult and force firms to hire additional workers to stand by to replace the missing. No comprehensive data exists on the cost of the disruptive effects of absenteeism. But in one year alone General





Motors spent $50 million just to provide fringe benefits to employees on days they were absent.

Corporate efforts to cut the cost of worker absence usually involve either tightening discipline or redesigning jobs.

The Health, Education, and Welfare Department study "Work in America" suggested job redesign as the best cure for absenteeism. The report found absenteeism correlates with job dissatisfaction. Jobs most likely to make workers stay home, the report said, are "dull, repetitive, and unchallenging."

After illness and boredom, other major causes of absenteeism are:

—Alcoholism. Oldsmobile reports, and other firms confirm, "Alcoholism is a significant cause of employee absenteeism."

—Economic conditions. "When times are bad people come to work. When they are good, more stay at home," says a Chrysler spokesman.

Even mixing dog food doesn't have to be boring. When General Foods opened its Topeka, Kan. pet food plant two years ago, workers were divided into teams. Each team member learns all of the major jobs in the plant and rotates through them periodically.

Absenteeism at the factory's forerunner was around 10 percent. The new plant's rate: between 1½ and 2 percent, according to John Ship, the operation's manufacturing service's manager.

Donnelly Mirror Company cut absenteeism from 5 percent to 1½ percent. "It was the direct result of removing the time clock and putting all workers on salary," says Richard Arthur, Donnelly's senior vice-president for consulting. Workers also get a bonus based on their productivity.

The salaried Donnelly production workers set their own pay scale, but have to find ways to increase profits to meet the increased salary costs. Challenging workers to cut costs and increase productivity seems to have diminished worker boredom and absenteeism. And the program has not hurt Donnelly. The firm makes 70 per cent of the mirrors used in domestically produced cars.

Sometimes worker absence is caused by family problems. Polaroid Corporation found absenteeism to be high among some employees who were working mothers. By providing day-care centers, absenteeism among this group "returned to our normal low level," according to Robert Palmer, community relations director for Polaroid.

The camera and film maker also solicits worker assistance in redesigning production lines. "Quality and quantity of production go up and absenteeism goes down" when suggested changes are implemented, Palmer reports.

Instead of redesigning production jobs, GM's Buick division redesigned its system for detecting fraudulent absences. The firm reduced absenteeism from 6 per cent to 4.2 per cent by establishing absentee centers.

The centers are manned by a clerk and a labor relations specialist, who, along with a computer, keep track of all worker absences and the doctors who provide employees' excuses. Buick attributes much of the program's success to working closely with 600 doctors who practice near the company's plants.

Humanizing a work environment does not always cut absenteeism, as General Electric discovered at its new *multiplant facility near Columbia, Md.*

Workers there undergo a 3½ day orientation program and then work in teams of 25. They meet monthly with supervisors to air gripes and suggest improvements. Employees can dress in any manner that allows other workers to concentrate on their jobs. Yet a GE spokesman admits: "We can't tie these methods to any reduction in absenteeism."

The do-it-yourself three-day weekends, however costly and persistent, are not a runaway phenomenon. The nation's absenteeism rate "held steady in 1972" for the first time in several years, according to Robert Stein, acting chief of the Labor Department's division of economic statistics. From 1967 to 1971 the rate rose from 4.3 to 4.7 per cent.

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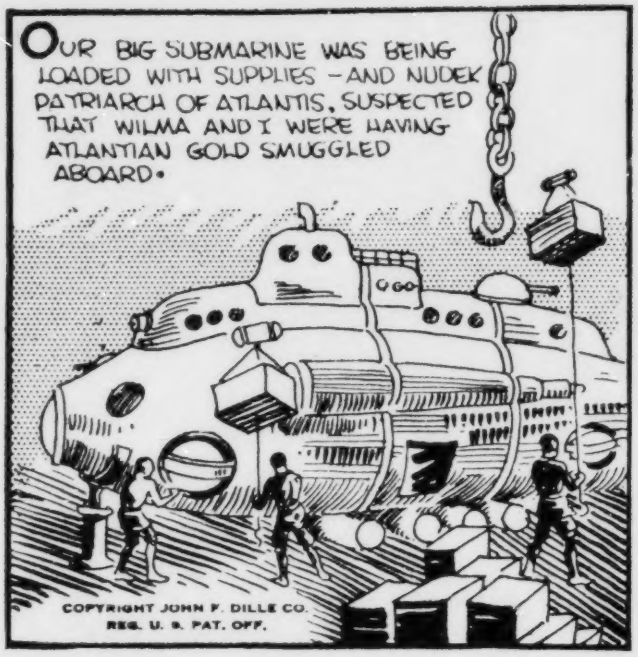
Work Tomorrow: High on Interchange

Industry's Scheduled Light-Dark Cycle and Other Variations

from Work and Nonwork in the Year 2001

Many ingenious suggestions for alternative working schedules have been made. One, called the "cubic day," calls for a two-person team to share a job that is done seven days a week. Each member of the team works ex-


OUR BIG SUBMARINE WAS BEING LOADED WITH SUPPLIES - AND NUDEK PATRIARCH OF ATLANTIS, SUSPECTED THAT WILMA AND I WERE HAVING ATLANTIAN GOLD SMUGGLED ABOARD.
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actly half the time, but team members, themselves, can decide who works when. One could work mornings, the other afternoons, or they could alternate days, weeks, or any other block of time. With modern transportation, there need be no standard season for vacations. Each worker could arrange with his teammate to take a vacation when it suits him best.

Another interesting suggestion is to change the length of the day so that it does not coincide with the cycles of the earth's rotation. Say, for example, that we had a 25-hour day. Those who report for work at eight o'clock would continue to do so. But obviously, eight o'clock would fall an hour later each day. Thus we would progress through the light-dark cycle. .

Perhaps work in the future will be similar to the housewives' or retirees' work in that pay will not be directly related to the work one does. Workers might be able to structure their own jobs without today's constraining and rigid structures implied by the concept of what a job entails . . . We also assume that work will become more of an integrative activity, drawing together people of different backgrounds, of different ages, and with different motivations. .

The growth of scientific knowledge, like that of the world's population, continues on an exponential curve. Man is likely to learn more in the next 30 years than he did in the past 100. The accelerating pace alone will make its mark. Rapid change, itself, perhaps the most obvious feature of contemporary society, may become even more symptomatic of society during the next two decades. . .

Technological innovations of the next 30 years will probably include the increased use of laser and maser beams for sensing, measuring, communicating, cutting, heating, and welding. New sources of power for ground transportation will make mass and rapid transit more economically feasible. Mechanical aids or substitutes for human organs, senses, and limbs will become widely available. Devices to induce controlled and effective relaxation, new and more reliable educational techniques for assisting public and private learning, permanent manned satellites for interplanetary travel, permanent manned underseas stations, memory and learning pills, pills to control senility and mental illness, small computers for communications in home management—all seem possible by the end of the twentieth century. . .

It becomes increasingly impractical for a student to prepare for a specific lifetime occupation. Education should emphasize learning how to learn and how to avoid obsolescence in one's occupational specialty. Yet broad academic preparation fundamentally conflicts with the increasing specialization of work. Workers need to have a special skill as well as an opportunity to learn of new developments in their broad fields of interest; thus, when the need for a particular specialty no longer exists, a worker can easily move to a new one within his general area of knowledge. . .

Workers employed in the year 2001 would be paid a basic rate for performing a basic core of entry tasks. Then, following a reasonable period of probation, they would receive additional increments. From the start, they would be assigned to a team and allowed to learn additional tasks as they became ready for them until they had learned all the tasks relating to the objectives of the team. They would then earn a team rate. They would carry no job titles, but would be identified with the team and the particular job to be done. There would be no specific educational requirements for achieving pay rates, although functional and specific training would be available and encouraged to enhance the worker's ability. There would be additional increments within pay rates for achieving higher standards. Team leaders and team members would determine who deserved such special merit increases on the basis of task performance standards. However, special merit increases should be quite exceptional, since team participation would recognize a wide range of effective performance. . .

In the year 2001 A.D., some of us will work even harder and in more complex and challenging jobs than we face today. But gratifications from creative success experiences at work also will be greater. The boundaries between work and play for the creative elite will be less distinct than they are today. At the same time, those who do not find work satisfying will have minimally secure, guaranteed incomes and more opportunities for leisure and play. . .

Temporary task forces, comprised of highly educated and specialized workers, will be formed. For individuals, these temporary task forces may lead to conflict of loyalty, conflicting demands upon time, confusion of perspectives, and few lasting friendships at work. But the rewards will be job enlargement, job enrichment, and much greater opportunity for individual contribution. The internal composition of these task forces will require different kinds of management or supervision. Task force members will demand permissive environments and egalitarian structures.

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communique

resources for practicing counselors

Dear Readers:

With the start of its third volume year, *Impact* is taking on a new look. We are bringing you a new section—**Communique**— which, until now, has been available only by separate subscription. Included in **Communique** are recent "Research Findings" from the ERIC data base, dissertations, and journal literature, plus "Vibrations," a section devoted to the presentation of innovative studies and projects and their availability. It is our feeling that by offering these **Communique** features in a cut-and-save section of *Impact*, which is already familiar to so many, we are bringing you an even more valuable resource than ever before. We hope you agree.

Carol Jaslow, editor &
the **Communique** staff

vibrations

Project to Focus on Parent-Child Obstacles

The Foundation for Child Development is funding a project to study major obstacles to adequate family functioning in regard to child rearing practices. An attempt will be made to transfer laboratory techniques on parent-child interaction to real family environments. The project is in line with others funded by FCD to support and strengthen the family unit. For further information, write the Foundation at 345 E. 46th Street, New York, NY 10017.

Down by the Old Diploma Mill

When you hang them on the wall, all diplomas look pretty much alike. Only you know for sure how much sweat and tears it involved. But diploma mills are going to find the future going somewhat rougher, thanks to model protective legislation approved at their annual meeting by the Steering Committee of the Education Commission of the States. The legislation proposes that all postsecondary institutions in a state, unless specifically exempted, would be required to meet minimum standards for educational quality, ethical practices, health and safety, and fiscal responsibility. Those institutions not accredited or generally recognized by the educational community (about 100 nationwide) would be principal targets.

Like Dear Old Dad

With interest in young people so high, results of a poll taken by the National Institute of Student Opinion under the auspices of Scholastic Magazines, Inc., should be noteworthy to educators and others working with youth. Perhaps surprisingly, almost half (49%) of 70,000 high school students in over 2,000 schools throughout the country favor life imprisonment for convicted drug pushers over 19 years of age, and almost that same percentage (46%) favor imprisonment with parole after 15 years for those between 16-19 years of age. Other areas of investigation reveal that over half the youth queried hold doctors in high esteem, half "usually" like school, and third prefer football to other spectator sports. For further information on this poll, contact: *Scholastic Magazine, Inc. 50 W. 44th St., New York, NY 10036.*

One If By Land...

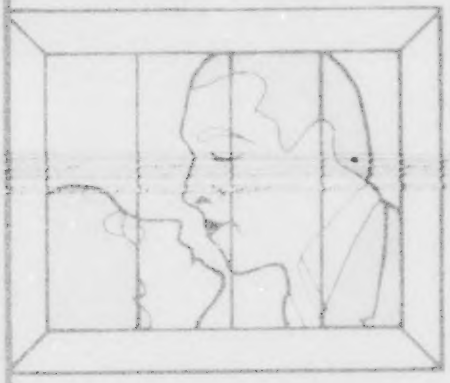
Some people really get into the swing of things! Children living near Valley Forge, Pennsylvania, are planning something special for the nation's bicentennial. They will steep themselves in the spirit of '76, living as they might have during the time of the American Revolution. Under co-sponsorship of the Chester County Historical Society, the "young revolutionaries" will use genuine artifacts to spin yarn, make brick-oven bread, recreate a general store and tavern, and read by candlelight. What was good enough for the forefathers...

Boys Will Be Boys?

What are *little* boys made of? Snakes and snails and puppy dog tails. What are *little* girls made of? Sugar and spice and all things nice. Or are they? Are our schools and teachers reinforcing this type of sex stereotyping in children? What types of textbooks, games, and toys can be effective in altering the situation?

Two recent grants are investigating possible answers to these questions. One such grant to Harvard University will investigate the relation between teachers' attitudes toward sex roles and their behavior toward boys and girls in class, curricular materials most likely to broaden a child's understanding of sex roles, and the influence on children of parent attitudes toward sex roles. A second grant, given to the New School for Social Research in New York City, will seek to give boys and girls a wider choice in their daily interests and activities via trips through local neighborhoods showing men who sew and cook for a living (tailors and chefs) and women who work as plumbers, police officers or taxi drivers.

Project findings—a curriculum guide, suggestions for teacher retraining and parent orientation, and new ideas for toys—will be reported and disseminated nationally. For more information, contact Dr. Marcia Guttentag, Harvard University, 3 Garden St., Cambridge, MA 02138; Henry Cohen, Center for New York City Affairs, New School for Social Research, 66 Fifth Ave., New York, NY 10011.



Drama Goes to Prison

While those of us who are inveterate theater-goers complain about rising ticket costs, there is a group for whom live theater is a very new experience. *Theater for the Forgotten* is one of several similar projects created by interested groups of semi-professional performers solely for the involvement of men behind bars. Originally conceived as a performing troupe, the group of off-Broadway actors were interested in presenting experimental material to interested and sympathetic audiences. Unable to locate in the usual "no-rent" facilities such as lofts, church basements, or empty stores, they hit upon the idea of taking their plays to prison. After much red tape, they were permitted to perform in the prison at Rikers Island, New York. Of the 520 people in the audience, only one had ever seen a live play! The interest and reaction was so intense the troupe was "hooked," and decided to devote full time to work with the prisoners. Not only have they produced plays for prison audiences, using professionals and inmates in the cast, but they have set up acting and writing workshops in a dozen New York prisons. The workshops stress improvisational techniques whereby the actors are given a problem and role but encouraged to think it out in their own way. Such techniques enable the men not only to examine their own attitudes and feelings, but to vent their feelings in constructive ways.

The *Theater for the Forgotten* is one of three groups that recently received a grant-in-aid from the Rockefeller Foundation for continuation of their efforts to provide opportunities for intellectual stimulation and spiritual growth for society's forgotten people. For further information, contact: The Rockefeller Foundation, 111 W. 50th Street, New York, NY 10020.

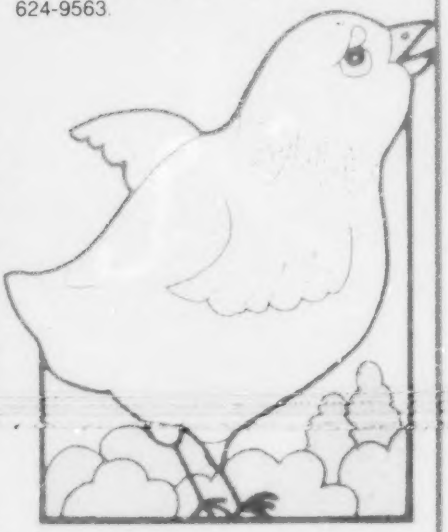
Recess Not Always Fun and Games

In May, 1970, the wrath of college students toward their government was at its peak. The Cambodian invasion and the Kent State slayings were catalysts to this anger. To ease tension on the campus, 40 colleges and universities declared a political recess. This plan became known as the "Princeton Plan," because this practice was first adopted at Princeton University. The rationale of the administration for such a recess was that it would permit students to work for the election of antiwar congressmen and, at the same time, restore student faith in the system. But what actually happened?

Two political scientists at the University of Wisconsin-Madison questioned students from 14 institutions that granted recesses and from 44 that did not. They discovered that, at the institutions where recesses were granted, 14% of the students actually became involved in political campaigns, while at the non-recessed schools 11% of the students reported involvement. A national polling organization noted at the time that 40% of the students had said they intended to work in the political campaigns. The most significant finding was that the recesses apparently served merely as cooling-off devices. Those few students who actually did participate in campaigns became further embittered toward the system.

Chicanos Go to Press

A new eight-page bilingual newspaper, *The Chicano Chronicle*, will give Mexican-American high school and college students an opportunity to explore the history of their people through a format that is both interesting and informative. Each issue will cover a portion of Chicano history through news stories, features, advertisements, and political cartoons written in the style of the period being studied. The series is planned around 11 issues, commencing with the period following 1846 when the Treaty of Guadaloupe-Hidalgo defined 75,000 Mexicans living in the southwest as "Americans." The last issue will deal with present concerns and the call for self-determination among members of the Chicano community. A Ford Foundation grant is launching the newsletter by covering the cost of publishing the first two issues and researching of the next four. The remainder of the project will then be handled by a Chicano educational publishing firm which will undertake production, marketing and distribution of the entire series. Inquiries may be directed to: Robert Miller, Chicano Studies Department, Claremont University Center, Claremont, California 91711 (714) 624-9563.



Run! The Sky is Falling!

It's not only Henny Penny who thinks so. Some sociologists think so too. A clouded future is forecast for job positions in the field, with the economic axiom of supply and demand catching up with Ph.D. positions in sociology. While there is no immediate overpopulation of sociologists, and most new Ph.D.'s are still finding reasonably good positions, this situation will not hold true for more than a couple of years. Extending over the next decade, the discipline will face a steadily worsening manpower situation. Survey statistics reveal that new academic positions in sociology each year have declined from 1,600 in 1971 to 358 in 1973. In the same time period, the count of new Ph.D.'s looking for teaching slots has increased from 495 in 1971 to 594 in 1973. Possible solutions may be: (1) to find ways to open up new jobs in the field; (2) to curb the number of new Ph.D. candidates; and (3) to encourage more sociologists to stop at the master's level rather than obtaining a Ph.D. and pricing themselves out of the job market.

Wanted: Brain Children

The entire Washington, DC area will become the new campus for Mensa College this fall. Mensa College is a new "without walls" institution which will use the Washington area for internships, research projects, seminars, and individual studies. Mensa College, the fifth campus to be set up by the University of Plano, Texas, has a unique student body composition. Its student population comes from those affiliated with the Mensa Society, an international group that calls its membership from those with IQ's in the top two per cent of the population. So far, 38 students have been accepted into this school; President Win Wenger has said enrollment in the future will not be limited to Mensa members.

Center to De-Stereotype Sex Roles in Education

A new newsletter, to be published occasionally by the National Foundation for Improvement of Education, aims at stimulating the work of individuals and groups who are seeking to eliminate sex role stereotypes in elementary and secondary schools. The Center, which is involved in the publication, will: prepare materials to assist school and community groups in the reduction of sex role stereotypes; develop a national clearinghouse of materials and resource persons which will facilitate research and action projects; and provide technical assistance in research, conference design and training to organizations and groups carrying out research and action projects.

To be on the mailing list and/or to share materials in these areas, write: *Research Action Notes*, Resource Center on Sex Roles in Education, 1156 15th St., N.W., Washington, DC 20036.

HEW Orders Studies on Child Abuse

HEW Secretary, Casper Weinberger, has requested a multi-agency effort to study child abuse. Other major agencies which have done prior work in this area are following the Office of Child Development's lead and have pledged their involvement. These agencies include the National Institute of Mental Health, the National Institute of Child Health and Human Development, the Social and Rehabilitation Service, and the Office of Education. Key contacts are Ira Lourie, NIHM; Joseph Bobitt, NICHHD; Gary Raff, SRS; and Robert Weatherford, OE. Weinberger has ordered $4 million to be spent on research and demonstrations and on setting up a committee to coordinate the activities of these groups.

OCD's Division of Research will stress demonstration projects and let NIMH and NICHHD do the more basic research. Other projects include two awards to the Child Development and Humane Assn. in Denver and the Mershon Center at Ohio State. CDHA will use its award to set up a clearinghouse to sift national data on the nature of various reporting systems and procedures, action taken by receiving agencies and the impact of that action on the children. The Mershon money will be used to identify the strengths and weaknesses of existing child abuse programs. For more information, write: Frank Ferro, OCD, Box 1182, Washington, DC 20013.

research findings

Summertime is a three-month vacation from school during which kids swim, play ball, go hiking and forget much of what they learned during the school year, right? Not necessarily, reports a recent California study of third graders. Results of a Stanford Reading Achievement Test administered just before school ended in June and two days after it opened in September indicated no significant differences in reading vocabulary, comprehension or total reading ability. In fact, a slight gain was registered—possibly the result of three months of maturation or summer reading programs at home.

Phi Delta Kappan v54 n10 p.705

Unfortunately, many youngsters, given the opportunity, will cheat on tests that they feel are important. Over 600 fifth and sixth graders were assigned randomly to one of eight treatment groups involving the following variables: high or low probability of test success, high or low risk of detection, and high or low test importance. A vocabulary test was administered with ample time for completion of each item. The most important of the variables under investigation appeared to be the probability of test success. When low success probabilty was combined with high test importance and low risk of detection, it produced the most significant amount of cheating. Oddly enough, more cheating occurred under conditions of low importance and high risk/low success probability than under similar conditions with high importance.

Journal of School Psychology
v10 n3 pp. 269-276

The slogan, "If you drink, don't drive" should be enlarged to include, "If you're angry, don't drive." A recent study of young drivers shows that drinking, per se, does not alter the accident or citation rate of young people. Rather, hostility and/or alienation from the educational system, for drinkers and non-drinkers alike, leads to considerably more traffic accidents, warnings, and citations. Among hostile or alienated people who were also drinkers, the accident rates rise sharply. It is theorized that heavy drinking may release antagonism in the form of reckless driving.

Behavior Today v4 n27 p 2

The evening student population is booming! Evidence from the literature suggests that adult part-time undergraduate students could benefit—as do their day counterparts—from carefully structured group experiences. This was a primary consideration for a study undertaken to determine the best group technique to employ in providing these students with worthwhile academic assistance. The study results suggest that a combination of group counseling and coaching were more effective techniques than group counseling alone.

Order No. 72-24, 733
Dissertation Abstracts International
v33#4 p.1441-A

We're familiar with the pattern of teachers teaching parents, but how about parents teaching teachers? A recent study investigated the effect of Family Involvement Community System (FICS) training upon the behavior, attitudes and achievement of disadvantaged youth. Low income parents were trained to train middle-class teachers in communicating effectively with parents and children in low-income areas, in an effort to open more communication lines between the home and school. As a result of home visits by teams of FICS teachers and "trainers," children did increase average daily attendance and achievement levels.

Further study needs to be made, but this looks like a promising way to bridge school and community. Parents might be attracted to a situation that enables them to use their expertise, not someone else's.

CG 008 219

It's great to have a winning personality, but it's even greater to be physically attractive. College students judged pictures of both male and female young adults on 27 personality traits, as well as on their likelihood of being most happily married, becoming the best parent, and being most socially and professionally content. The good-looking people won, hands down, on all counts except becoming good parents. The average-looking group were accorded a fair shot at life's basket of goodies, while the unattractive group were low on the totem pole on all counts.

However, according to another study ("Body Image, Physical Appearance and Self-Esteem," by Berscheid, Walster, and Bohrnstedt, a paper presented at the American Sociological Assn., New York City, 1973), the unattractive group is not

that large. Only 20% from a Psychology Today *survey expressed some dissatisfaction with their overall body appearance; only 5% were quite dissatisfied; only 2% were extremely dissatisfied; and only 49% were either quite or extremely satisfied.*

Human Behavior, v2 n5 p.24

Material incentive provides motivation not only for working adults but for classroom youngsters as well. Results of a study involving white fourth-graders from a middle and a low SEC (Socioeconomic class) school indicate that, regardless of SEC, children seem to learn better under conditions of material rewards (M) than under social (S) or no (N) reinforcement. Eighty-seven middle and 87 lower SEC boys and girls in six different classrooms were involved in a three-week period of experimentation during which spelling was taught under one of three incentive conditions SMN, MNS, NSM). While no significant differences in spelling ability were present as a result of SEC, results suggest that material incentives are generally more effective than social incentives or no feedback in the classroom learning of 4th graders.

A snowballing amount of literature supports the idea of token economies in behavior modification. Counselors who are acting as teacher consultants should be aware of these procedures and their success rate in dealing with a variety of classroom behavior problems.

Psychology in the Schools, v10 n1 pp. [illegible]

If you think you can tell a math wizard from an artist on the basis of personality characteristics, you may be in for a surprise. According to a recent study of 1,098 high school students identified on several criteria as academically or artistically gifted, very few personality differences emerge between the two groups. The major area of self-reported difference was in the factor describing "intelligence," wherein the academically gifted are characterized by more intelligence while the artistically gifted are characterized by less intelligence. A "cerebral" syndrome characterizes the academically talented wherein practical learning and intellectual tasks are rapidly mastered without tension. A "value" orientation characterizes the artistically talented, whereby they prefer working with ideas that have current, practical and realistic outcomes.

Though it means dealing with the thorny problem of stereotypes, maybe this information can be useful in career counseling.

Psychology in the Schools v10 n2 pp.189-195

Is the risk of retaliation worth the prize? According to an experiment conducted at Purdue University, it depends on the potential value of the aggression. If the aggression produces results that have high positive appeal for the aggressor, the threat of retaliation from the victim is relatively ineffective as a deterrent. If on the other hand, the instrumental value of the aggressive behavior is low, threatened victim retaliation would be highly effective in inhibiting subsequent aggression.

The implication for the school setting is that threat, as a discipline tool, has only accidental effectiveness.

ED 079 628

Love and marriage may still go together, but love and creativity may not! A new study of more than 400 young people indicates that those with strong creative potential more often reported rejecting parents, while those with lower creative potential usually described their parents as warm and loving. This research supports the findings of previous work that demonstrated that cool relations are the norm between parents and their creative progeny.

Human Behavior, v2 n8 p.32

Transfer is a two-way street, but most research is done on those community college students moving into four-year institutions. What happens when students move the other way? A comparison study of "reverse transfer" students and a control group of persisting university students (University of Iowa) indicated that reverse transfer students had lower high school and university academic records than persisting students; enrolled originally at the university for non-academic reasons in far greater proportions; generally performed well at the community colleges to which they transferred. These findings are particularly pertinent for male students.

With the increasing popularity and expansion of community college programs, the reverse-transfer student may be a person counselors find in their office more often. If so, what tools can counselors use in assisting these students? One good source is a manual developed at the University of Maryland. It is helpful in showing the similarities between occupations available to students trained in community colleges and occupations vs. those trained at four-year institutions.

ED 082 710

Some teenagers benefit from being "groupies"! A recent study of chronic high school absentees indicates that group counseling has potential for improving their study habits and attitudes toward study. A chronic absentee was defined as any student who was inexcusably absent 18 or more days in the previous 180-day school year. School attendance may not improve as a result of group counseling; however, benefits may be derived by students from the discussion content and the group experience itself. An eight-week counseling session was found to be most beneficial in contrast to 16 and 24 week sessions.

Order No. 72-13, 017
Dissertation Abstracts International
V.33#1 pp.152-153-A

Are orientation experiences all they are cracked up to be? Perhaps not, according to a study recently completed at Oklahoma State University. This investigation on the impact of a first semester orientation course suggests that the orientation experience a student receives does not significantly contribute to his success in college. Success was defined in terms of achievement as measured by grade point averages, value orientations, philosophies of human nature, perceptions of campus environment, and attrition. The use of upperclass students as leaders in the orientation course appears to be no more effective than the use of faculty personnel.

Order No. 72-22, 011
Dissertation Abstracts *International*
V.33#2 p.579-A

Is first always best? Does awareness of birth order or ordinal position provide counselors with greater insights into clients' interpersonal relationship problems? A study of male undergraduate students at the University of Wyoming indicates that firstborn, male undergraduates are less likely to seek counseling from a university counseling service than undergraduate males who are either middle, last, or only children.

Order No. 72-26, 500
Dissertation Abstracts International
Vol. 33#4 p.1427 A

Another study of female undergraduates, completed at the same university during this time period, yielded similar results.

Order No. 72-18, 344
Dissertation Abstracts International
Vol. 33# p.169-A

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Feedfore

Society's current preoccupation with the future may stem, in part, from its difficulties in dealing with the present. At a time when those in the helping professions are being criticized for failing to accomplish past miracles, they are being asked to help people prepare themselves for an uncertain future.

The counseling profession itself faces an uncertain future, challenged on the one hand by lack of public confidence and on the other by extreme curtailment of funds. This double threat has created, in the minds of many, a "counselor surplus." Yet we know from personal experience that most schools, far from having a counselor "surplus" actually have a shortage.

Does a counselor surplus truly exist? If so, how can we cope with it; if not, how can a limited number of professionals work with people to help them better adapt to an uncertain future?

In keeping with our policy of reacting to future social issues—how society will change, how we can help it change for the better, how we can manage our resources to better advantage, and how we can prepare ourselves to live in a changing world—Feedfore asked an extended panel of helping professionals to do some crystal-gazing. We asked them to respond to two areas of concern: (1) counselor surplus; and (2) preparation for the 1980's. The responses appear in two parts.

PART I.

1. Do you think, from your own experience, that a "surplus" exists in the counseling profession, and if so, for what reasons?

Everything is relative. Any response must be considered in relation to the existing need for guidance and counseling services as well as in relation to the number of positions available. A surplus of graduates is not synonymous with a surplus of trained counselors. Employers can now be more selective in their screening procedures and should consider only those applicants who have fully met state certification standards and are highly recommended by their former employers and/or counselor educators. While there is a surplus of graduates in the field, this does not mean these people are unemployed. Most seem to have found positions in related areas, either by choice or job availability.

Finances and standards are inadequate. A surplus of graduates exists because most states have not provided a sound financial base for school pupil personnel services. While enrollments at different school levels have changed, staffing policies have not kept pace. Arbitrary student/counselor ratios have been established, but little if any, funding has been provided to support the policies. With increasing calls for accountability, counselors are seemingly expected to "rake leaves in a windstorm." At the elementary level, program standards as well as adequate counselor training programs are lacking at a time when students are undergoing pronounced personal and social problems and when intervention strategies are critically needed. Federal support for counseling and guidance in the schools is no longer fashionable. Public attitudes toward school itself are very critical, leading to the failure of millages and the accompanying reduction of ancillary services. The problem seems to be not so much a surplus of trained counselors but a paucity of funded positions.

Counselors are, in part, at fault. Much responsibility for reductions in guidance and counseling staff rests with the counselors themselves as well as with counselor educators. Counselors have been trained to relate to education only tangentially, and therefore counselors have not generally incorporated themselves into the educational programs of their schools. Such behaviors have alienated counselors not only from community support but from school support. Perhaps the most vulnerable to dismissal is the counselor who spends all his time in a one-to-one counseling relationship. Counselors who survive will be those who contribute to the total educational functioning of the school—who work with teachers and youngsters to improve the classroom atmosphere and the relationships between teachers and students. Demand for career counselors and for minority group counselors is likely to remain high in the face of other cutbacks.

2. What response should be adopted in the preparation and placement of new counselors?

New kinds of training and selection are needed. "Surplus" counselors are those trained at the graduate levels and are, therefore, too expensive to hire. What is needed is an undergraduate training program—similar to that in use for teachers, engineers, etc.—to provide younger counselors at considerably less cost to them and to employers. Anticipated changes in national priorities will likely lead to an increase in educational programs at the bachelor level; others will add the bachelor curriculum to their responsibilities. This lower-level training would permit a career ladder in counseling, with graduate training providing opportunities to specialize and/or move up rungs just as it does in other professional areas. At whatever level training is offered, counselor educators as well as school administrators must strengthen their policies of counselor recruitment, screening and selective retention to eliminate those entering or already in the field who are poor professional risks. Better candidate selection procedures will enable institutions to accept those whose capacity to relate to others will help ensure success in practice later on. (Employability should depend less on degrees and course credits and more on interpersonal qualities.) Counselor education departments must not only do a better job on candidate selection; they must also resist the pressure to admit students merely to justify high staffing and budgeting.

Respondents to this issue's Feedfore are:

Keith Barnes
Director of Counseling
Columbus Public Schools
Columbus, OH 43214

Thelma T. Daley
Director of Counseling
Overlea Senior High School
Baltimore, MD 21206

Darrell Hines
President of ASCA
Kirkland, WA 98033

Charles Lewis
Executive Director, APGA
Washington, DC 20009

Ronald O. Lippitt, Program Director
Institute for Social Research
University of Michigan
Ann Arbor, MI 48104

John E. Muthard, Director
Regional Rehabilitation Research Institute
Gainesville, FL 32601

John C. Ormsby
Director of Guidance
Haverling Central School
Bath, NY 14810

Paul R. Salomone
Associate Professor of Education
Syracuse University
Syracuse, NY 13210

Frank B. Womer
Professor of Education
University of Michigan
Ann Arbor, MI 48104

C. Gilbert Wrenn
Professor Emeritus
Tempe, AZ 85282

Training programs should become more "integrated." In order to prepare counselors to work more effectively with other educational staff as part of a team, training programs should become more integrated into schools of education. In turn, this kind of preparation will prepare prospective teachers to work with, and value, school counselors. Counselor educators themselves should spend some time annually—perhaps a week—in the field to observe actual needs.

People as well as ideas are important. Counselor education programs should focus on *people* contact as well as idea contact. Current programs provide course work first, with contact later, thereby encouraging formation of generalizations and stereotypes. Counselor trainees should be provided with early opportunities to observe people and have personal contact with them in order to prevent inaccurate generalizations.

Public relations is vital. A working role statement for each counseling program must be undertaken to redefine the scope and responsibilities of the contemporary school counselor. Counselor education programs should assume responsibility for: defining job availability, responding to social and professional change via curriculum revision, encouraging involvement with educational programs, inviting input from practitioners, providing updating opportunities for those who have been in the field for some time, and calling a moratorium on admissions if information indicates that a surplus of trained counselors does, in fact, exist. Professional groups must do a better public relations job to encourage governments to support guidance services more strongly at both federal and state levels.

Population realities must be faced. Counselor educators must accept the fact that population trends indicate that needs for counselors and teachers are currently falling at the elementary level, and will, therefore, fall at the secondary level in five to ten years. Counselor education departments must be more selective in their admissions and more realistic in their preparation.

PART II.

1. What should counselors do to prepare themselves professionally for the 1980's?

Be knowledgeable about the world in which you live. The impact of TV, travel, and family mobility upon people is enormous, exposing them to new ideas, products, values and prejudices. Helping people must keep abreast of current developments not only in their own fields but also in the community, nation, and world so they can better understand clients' fears and concerns for the future.

Recognize the responsibility to wider groups of clients. The counselor of the future will be called upon to become involved in the total development of the client; this may necessitate working with entire families. People cannot be seen in isolation; they will be treated as part of a group constellation. Counselors will find themselves involved not only in home situations but also in more comprehensive community-based settings such as correctional institutions and hospitals. Rehabilitation counselors, for example, will need to cope with three major developments: (1) reordering of national priorities in the social services; (2) impact of current manpower shortages (surplus??) on future services; and (3) trend toward greater personal and agency accountability. A growing emphasis on lifelong education will lead older people to return to school. Counselors must understand their needs and life styles so they can counsel the 50-year-old as well as the 18-year-old.

Prepare for career changes. The days of lifetime service to an institution or agency are becoming increasingly limited. It is imperative that counselors prepare, both professionally and emotionally, for personal career changes. The expansion of community-based services will offer a wide variety of settings in which helping professionals will be called upon to work; those who have trained as school counselors must be prepared for moves into other work settings as the need for their services decreases and the need for services elsewhere gains support.

Improve training. As the world becomes more complex and people are called upon to make greater adjustments, counselors must become sufficiently adept at process group strategies to help link those persons who need close interpersonal relationships and to intervene in work and conflict situations. People who find themselves socially or occupationally isolated as a result of personal or job change will need to be encouraged to form relationships with similarly isolated people.

2. What should counselors do to help their clients prepare for the 1980's?

Plan for life. Counselors should help their clients with Life Planning for several vocational changes, early retirement, and volunteer involvement. They should encourage clients to develop a diversity of talents and skills to enable them to cope with vocational changes as well as more discretionary time. As technology reduces the hours spent at "work," people will find they have more time on their hands. Many persons have never learned how to use their leisure to good advantage. They need to be encouraged to pursue avocational interests and to volunteer their time and effort to satisfy their own needs for constructive outlets plus the growing manpower need for unpaid help, particularly in the social services.

Accept social change. Clients need help accepting the blurring of rigid social lines. There will be more mutuality of influence, status, rights and responsibilities of men and women, youth and older persons, consumers and producers, etc. Those who adhere to the traditional concepts of sex and role delineation will face problems not only of self-identity but of adjustment to a world undergoing reexamination and reshuffling of such roles.

Learn how to learn. Counselors must help clients "learn how to learn"—to understand changes, to accept them and to adapt to them without feeling threatened. They must help clients accept upheavals in their lives without becoming traumatized, disorganized, ineffective and dependent upon society.

Foundations Grant Aid to Preschool Program

What may be the nation's first major school-based program to provide comprehensive educational and health services to children during infancy and the early years of life is to be initiated by the Brookline School system in Brookline, Massachusetts. Called the Brookline Early Education Project (BEEP), the pilot program will be supported over the next two years by grants totaling $750,000 from the Carnegie Corporation and the Robert Wood Johnson Foundation. Under the direction of Dr. Donald Pierson, the BEEP staff will support parents in "monitoring all aspects of a child's physical, intellectual and psychological growth in order to encourage optimal development of his abilities and to ensure that no child reaches kindergarten age with an undetected learning handicap." The program will include diagnostic services, educational programs for parents and their infants and evaluative studies to assess the effectiveness of the various components of the program along with estimates of their cost.

Carnegie Report Cites Tortoise Pace of Women in Higher Education

The largest unused supply of superior intelligence in the United States is found among women, the Carnegie Commission on Higher Edcuation asserted in a report urging that barriers to the advancement of women through higher education be removed.

The Commission's views are set forth in *Opportunities for Women in Higher Education*, published in September by the McGraw-Hill Book Company.

The report points out that at each level of advancement within the educational system in the United States, the percentage of women who participate declines. They constitute 50.4 percent of high school graduates; 43.1 percent of those who earn bachelor's degrees, 36.5 percent of those with masters and doctors degrees, 24 percent of faculty members, 13.4 percent of those who hold doctor's degrees and 8.6 percent of full professors.

The Commission further estimates that, on the average, women faculty members annually receive about $1,500 to $2,000 less than do men in comparable situations. This adds up to $150 to $200 million less per year across the nation.

To overcome these disadvantages, the Commission favors the removal of "all improper barriers to the advancement of women; active search for their talents; and special consideration of their problems and for their contributions."

At th pre-college level, the Commission favors more mathematical training for girls, and counseling that is free of outmoded conceptions of male and female careers.

For prospective college women, the Commission favors greater concern for fairness in admissions with achievement and ability as the basic criteria. It believes that more efforts should be made to increase the pool of women holders of the Ph.D., the Doctor of Arts degree, and other advanced degrees preparatory for research and teaching. The Commission also calls for more opportunities for women to return to college for advanced training after they have started their families.

The Commission explicitly favors the continuation of colleges for women, noting that "they provide an element of diversity among institutions of higher education and an additional option for women students." The Commission finds that an unusual proportion of women leaders are graduates of these colleges and that at these institutions women generally choose to enter 'male' fields such as science more frequently, and have more role models and mentors among their teachers and administrators.

At the faculty level, the Commission favors special efforts to recruit women into the pool from which appointees are selected. It also favors special consideration (when making appointments) to the potential contributions of women to departmental and college excellence as models and as special sources of sensitivity to the problems and aspirations of women students.

The report favors policies that allow more part-time appointments, provide for child-bearing and child-rearing leaves, and reduce the severity of anti-nepotism rules.

The report also urges institutions to develop adequate child-care facilities and policies of cooperation with groups to provide child-care arrangements. Institutions should make more efforts to place women on administrative staffs, and should appoint more women to governing boards.

The general objectives of the "affirmative action" program instituted by the federal government on behalf of women are endorsed in the report although the Commission regrets "the occasional excesses in its application."

The Commission does *not* believe that a reversal of inequalities in the addition of women to faculties can be achieved for a number of years. There are very few women already on faculties to provide a base; the pool of women qualified for appointment is restricted and will take time to enlarge; and the rate of hiring is decreasing as the rate of enrollment growth slows down. The Commission estimates that more hiring will take place in the 1970's than in the 1980's. Therefore, the report concludes, "It will take until about the year 2000, under reasonable assumptions, before women are likely to be included in the national professoriate in approximately the same proportions as they are in the total labor force—this is a task for a generation of effort." It also notes that the time needed to absorb a satisfactory level of women into faculties is lengthened by the concurrent need to absorb more members from minority and other underpriviledged groups.

The Commission warns against applying simple, across-the-board representation in higher education because situations vary greatly. For example, public community colleges and public comprehensive colleges have rapid enrollment expansion ahead of them—so they are in the best position to hire more women. They also make greater use of persons with the M.A. degree—who include a large and expandable pool of qualified women. Some academic fields, the humanities and the creative arts, for example, already have many women in the pool.

The Commission concludes that "revolutionary changes are underway in the development of greater occupational opportunities for women, in the nature of the family, in sexual roles, in childrearing obligations, and in many other ways," and that "Substantial improvements are now taking place in the position of women within higher education. This momentum of improvement must be continued until loss of talent and unfair discrimination have been fully eliminated."

Consultations

Dear Impact

I have a problem I cannot get a "handle" on. Thus, I ask the help of your experts on this problem.

I have been asked to suggest to my university's administration ways of implementing the concept of "Valuing" to our students, especially the undergraduate students at this university. The university *does* retain its Catholic orientation; approximately 50% of the faculty and students are Catholic.

I look forward to any guidance you can give me on this problem.

Resource Seeker
In San Diego

Dear Resource Seeker:

We concur with your feeling that this is a difficult matter to tackle. The abstract nature of a concept like values makes it difficult to build a program around it. Yet, values education, when viewed as a process that students can use in deciding future actions, also becomes useful to college student personnel workers as a way of understanding and reaching out to students with positive programs. The appended list of ERIC documents and books provide a number of ideas and exercises for the valuing process.

If it is a particularly Catholic value system you want to give your students, then curriculum is the best jumping-off point. Theology and philosophy are the traditional focal points for the teaching of values in a religiously-oriented school, but the careful selection of other subjects can also provide openings for teaching a particular valuing code.

The valuing process can also be communicated to students by enlivening traditional curriculums or by devising more value-focused new ones. Often these new ones are built around the theme of career education, based on the premise that teaching the valuing process is one way of closing the gap between what people value and the reality of career choice.

However, the curriculum approach is nothing new. What is new is the idea of teaching the "how-to" of making choices based on an ongoing exploration of self.

Counseling center groups, dorm activities, special workshops sponsored by departments, and student activities are ways to reach out to students with the valuing process as a meaningful tool for making life choices. One program useful for this outreach is the *Life/Career Development System*. Consisting of nine modules, this system is designed as a set of core experiences which deal with life/career development, and particularly with the issue of values (cited below).

One more possible source—an educational psychologist located in your area who has done research in values education is Richard E. Carney, 1776 Diamond Street, San Diego, California.

We hope we have helped to generate a few ideas that will make your task an easier one.

Impact

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Do you have a problem you can't quite get a "handle on"? If so, why not write

Impact/Consultations
Post Office Box 635
Ann Arbor, MI 48107

Letters

Dear Editor:

I wanted to write and let you know how much I have enjoyed *Impact*. I think it is an important addition to the counseling field and really deals with important educational issues in imaginative and forthright ways.

If there is one criticism I have, it is that I would like to see more attention given to women, both in terms of contributors and authors. I have mentioned to you before, I believe, that there are a number of qualified, competent women in the counseling field who would be excellent additions to your advisory panels, reactors and Feedfore panelists.

Nonetheless, I thoroughly enjoy and appreciate the journal. I look forward to continuing to receive it.

L. Sunny Hansen
University of Minnesota

Dear Editor:

Impact's Issue on "Sexual Concerns and Helping Approaches" (Vol. 2, Nos. 4 & 5) was really fine—*But what the hell is your problem?*—Figures in shadow, little wooden statues and dotted heads used in place of real people with real bodies—naked or otherwise—just doesn't make it. One week at Esalen for the entire editorial staff seems called for in this situation.

Joseph Feinstein
Sherman Oaks, California

Dear Impact:

I subscribe to *Impact* and consider it to be the most helpful journal in my profession as counselor. The magazines I have received are useful in my high school psychology class as well. It is because I have lost one of last year's issues—Volume 2, Nos. 4 & 5—that I am writing to you now. I would like to use the sex quiz in my psychology and biology classes. Thank you for any help you can give me.

Don Gabbert, Counselor
Walla Walla, Washington

Your Change, Sir

Behavior Mod is an economic proposition at the Waco, Texas alternative school for incorrigible youths, the Juvenile Alternative Center School.

JACS, as it is called, was founded in 1970 and sponsored by the Western Institute for Science and Technology, McLennan County's chief probation officer, and the director of special education for the Waco school district. Its premise is that since academic failure and maladaptive social behavior go hand in hand, an academic program is an essential component of any remedial or compensatory program in behavior modification.

Yet the academic program itself—although geared to progressive learning, with progress checks along the way—is less interesting than the economic techniques used to shape students' behaviors.

The stated major emphasis of the school is on the development and improvement of the juvenile's self-image. The incentive system used to attain this result is managed as a micro-economy. Students earn points for exhibiting positive academic and social behaviors. These points can be converted into money, which is negotiable at student operated stores or banks. Students can buy reinforcing activities and items such as a game of pool or craft materials or invest their cash and earn interest.

It is crucial to the success of the program that the activities in the recreation area (RE) be reinforcing to the student. Students are thus willing to perform assigned social and academically oriented tasks (low probability) in order to earn points so that they can return to the RE activities (high probability). Preventing satiation with reward incentives is imperative, so teachers try to "hook" students on other activities in order to expand their interests.

If some students earn more points (supply) than they need (demand) to maintain a desired level of motivation, they learn quickly about price controls. To prevent inflation, a freeze is placed on the number of points given as rewards. A banking system is maintained, with interest and loan privileges for students who would rather save their points. Points are taken from a student if he exhibits undesired behavior.

The tenure of the students in the program depends upon their entering behavior and subsequent academic and behavioral progress. However, no student is allowed to remain more than three semesters. Reports by counselors in the school district indicate that over half of the students who returned from JACS functioned adequately in peer situations; the other half exhibited very few maladaptive behaviors.

This success prompted 19 other school districts in the area to join the JACS consortium this year.

Who Am I?

I am a product of history
who is facing a world never seen before.
I am a product of the impact of rapidly changing outer realities
upon my more slowly changing inner reality.
I am unique, irreplaceable,
for, as inconsistent and weak as I am,
there is no one like me.
I am a part of God–
a very, very small part of the Infinite,
but I deserve to respect myself for it.
I am, in part, and only in part, autonomous and free–
but that is an important dimension of me.
I am in a psychological life space
composed of both the inner and outer me
and all of the "important others" in my life.
I am not a lone star, but part of a constellation,
all enclosed within my life space.
I am, therefore, a person who cannot be concerned only for the self
that I sense and feel
but also for the *rest* of me,
those others who are a part of me.
I am a person with some beliefs,
something I am for, not merely against;
I stand on firm ground so that I behave not
like a windmill but like a tree,
bending with the wind—but rooted.
I am a person who must be always seeking
but never expecting fully to find.
I am a person who is able to make occasional, but significant contact with the life space of others–
a contact between perimeters that sometimes exhilarates, sometimes frightens me.
But to *make* contact gently but firmly—
with full knowledge of the other's tendency to shy away,
then perhaps timidly return—
this is a function of love and skill;
this is my task as a counselor.

C. Gilbert Wrenn
Arizona State University, Tempe
1973

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What one man can imagine, another will someday be able to achieve.
Jules Verne

Exploring Alternative Futures

A Proactive, Developmental Curriculum

by Sheldon Eisenberg Syracuse University

Studying the Future: New Twist or Old Hat?

From a certain narrow perspective, schools have always had a futures orientation. The basic mission of the school was to develop the "good" citizen and to develop in students the skills, knowledge base, attitudes, and values that would contribute to their effective functioning as adults in our society. Weinberg pointed out in 1971 that, "Education has never doubted or challenged its commitment to expend much of its resources on producing the good citizen." This basic mission and the assumptions behind it have spurred continuous debate among education experts and lay people alike. For obviously, what a good citizen to one person was anathema to another. An educational practice that would create a certain kind of adult might be viewed as favorable by one person and counter-productive by another.

Guidance too has always had a futures orientation. In offering vocational choice counseling, Parsons (1909) clearly saw his role as helping people make future career plans. While thinking about how such help might best be offered has changed since Parsons' turn of the century views, the task of helping people make choices and plans for the future continues to be an essential dimension of the counselor's role.

If an essential mission of education and guidance is to help students with their futures, one way to do it is to offer a course on the study of the future. Eldredge (1970, 1972) points out that such courses are being offered with ever greater frequency in both high school and college settings. The purpose of this article is to propose a course entitled: Exploring Man's Future. After discussing course objectives, a variety of learning activities will be described. Resources and materials will be suggested, as well as tips for conducting the course effectively.

The futures exploration process to be described here is geared primarily for high school students and higher levels, although a modified version has worked effectively with an advanced group of third grade students. The elements of the curriculum can also be easily adapted into workshop format for a group wanting to plan for its own future. Thus, for example, a guidance staff wishing to plan the future of its program might find a workshop based on the futures exploration process a worthwhile experience.

Goals of the Course

While a variety of alternative approaches to designing a futures curriculum are possible, a primary goal should

be to help students explore two basic futures questions: "What is possible?" and "What is desirable?" Such a curriculum should help students raise these questions with regard to their personal futures as well as the future of their society. It is especially essential, during the introductory phase, to engage students in self examination and value clarification activities. We can help them examine their current views, assumptions and feelings about the future: whether they are optimistic or pessimistic; whether they enter the future with hope or despair and confusion; whether they feel a sense of potency or non-agency. We can help them imagine, wonder and conjecture about what is possible, and we can offer them a variety of values clarification activities to help them explore what is good, desirable and preferable.

Later in their study of the future we can help students learn the similar processes of planning and decision making, at both personal and societal levels. We can help them learn about the processes by which change takes place in our society, both intentional and accidental. We can help them learn some of the alternative approaches futurists use to make predictions: trend analysis, consequence analysis and Delphi Techniquing. We can help them explore alternative solutions to contemporary social problems. Further on in their study of the future we can help students develop their own areas of futures investigation: urban planning; health care services; values shifts; educational innovations; the future as seen by political and science fiction writers; etc.

Achieving these goals is both a systematic and creative process, involving a variety of exciting learning activities. The inventive teacher or couselor will evaluate and modify these goals to accommodate students' expressed desires, areas of interest and abilities. He or she will also explicitly share these goals with students and encourage them to elaborate upon and personalize them. In this way students can provide their own motivation for the course from the very beginning.

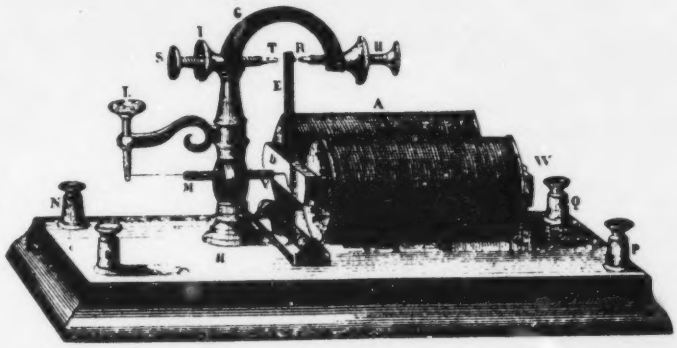
The Facilitator

The key participant in a course on the future is the facilitator. His role is similar to (but not exactly the same as) that of a group facilitator, and far different from that of a traditional teacher. During the introductory phases he works to help students communicate with each other. He stresses self examination and values clarification. He tries to help students imagine, speculate and conjecture. He helps students think in terms of alternatives and possibilities rather than right and wrong answers. He avoids lecturing and imposing his views. Once the introductory phase has been completed, he acts as a resource person: helping students plan and develop their own explorations into the future.

Past experience with such courses suggests that effective facilitators are people who are imaginative; willing to take reasonable risks to implement new ideas; able to tolerate others' unusual ideas; flexible in their planning; introspective; interpersonally sensitive; able to identify assumptions, values, and feelings held by others; able to respond in a helping way to these ideas; unthreatened by ambiguous situations; and open to alternative possibilities for their own future.

At first glance, Exploring Man's Future might appear to be a course in the province of social studies teachers. But the counselor who is effective in human relationships, skillful in facilitating self examination and values clarification, and competent to help others make important decisions for themselves, would be an especially effective facilitator. In our view it is not the person's title, but rather the talents and skills he has to offer that make him an effective facilitator.

Exploring Man's Future is an excellent theme for team teaching arrangements. If they relate well to students, counselors and teachers of social studies, English, science, mathematics, art and physical education all have something valuable and important to contribute.



Conducting the Course

From the beginning participants are divided into self contained groups of six or seven members. Participants stay with their group during the entire introductory phase. Since they are involved in listening to, and helping each other, they can progress best if they establish a sense of group trust and safety. The facilitator can be instrumental in creating and sustaining an environment of trust.

Phase I. Brainstorming

Brainstorming is usually a very good way to get a group started. Since brainstorming is a new experience for many people, a few warmup exercises are helpful, e.g., think up possible uses of a bathtub or find ways to change the color of a wooden chair. Then, participants in each group are asked to use the brainstorming process to generate free associations to the concept "future." At this stage, of course, various assumptions, feelings, etc. begin to emerge. Because facilitators do not evaluate the various contributions during brainstorming, people feel safe. Consequently, a group of six may well generate 80 to 100 associations to the term future. A recording secretary jots down each contribution. It is not unusual to hear students making such associations as these to the word future: machines, war, bombs, love, hate, scary, greed, new, unpredictable, uncertain, free-at-last, overpowering, challenges.

Each participant is then asked to develop a list of three words or phrases that communicate the personal meaning the term "future" has for him, and to write this list on an index card for the others in his group to see. A progressive reduction process is used here. The recording secretary reads each contribution and each participant jots down any words that might contribute to his final list. Each participant works with a list of perhaps 10 to 15 associations until he can synthesize them to three. Those three are written on his index card.

When all have finished, participants are asked to form action words by adding the suffix "ing" to each phrase. Thus "opportunities" becomes "opportunities-ing," "friends" becomes "friends-ing," and "scary" becomes "scary-ing." This actionizing process helps students to more fully consider action they may take to bring about what they desire and prevent what they do not desire. It also helps students more easily use their associations to write scenarios later in the course.

Members then read each of their actionized associations to the rest of the group. While this is happening, the group facilitator's role is to listen for common themes and ideas. These common themes are the source of the subsequent group interaction. The facilitator simply asks one of the members to communicate more fully the meaning and significance an especially central association has for him. Anotherperson who shares the association is asked to communicate his perspectives on it. At this stage, an exciting discussion often ensues.

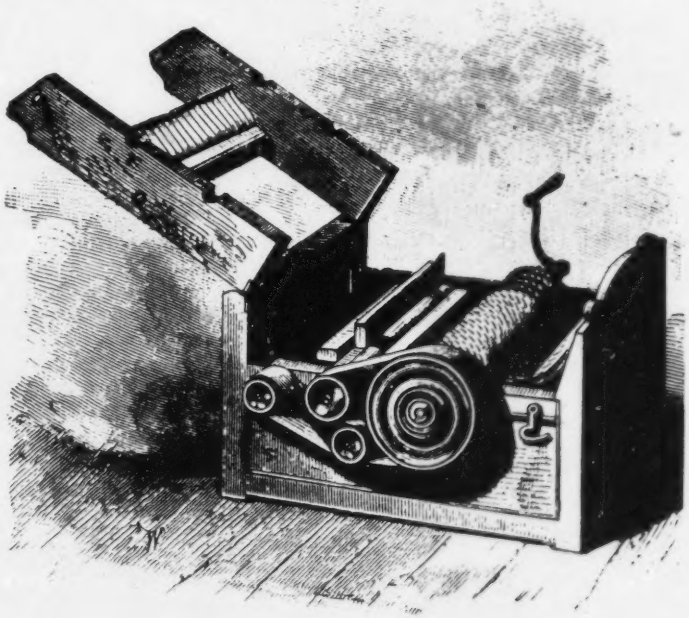
The facilitator's contribution to the process is similar to that of a facilitator of a group experience. His role is to help people communicate with and understand each other; share common ideas; share different perspectives on questions and issues; and, in a non-threatening way, to help each group member look at his own assumptions, feelings, and so on. (Many suggestions for facilitating such discussion are offered by Raths, Harmin and Simon, 1966).

Some themes that frequently emerge during such discussions are: Is war inevitable?; Is peace possible?; Death; Personal confusion about what I want for myself; Marriage; Dehumanization; Doomsday and earth's destruction; Reconciling what I want with what others want when our desires are incompatible; What would life be if I weren't going to school?; Will there ever be a time when I can do what I want to do and not what other people tell me I should do?; Is it possible for cruelty amongst people to be eliminated? Such discussion could go on indefinitely, but it is wise to continue with the next phase of the process after no more than two such discussions.

The brainstorming component of this process is essential for a variety of reasons. In brainstorming there is no such thing as a wrong or incorrect contribution. Participants are helped to feel good about the contributions they offer, no matter how "unusual." Frequently people will offer a contribution and look to the facilitator to see if it was "O.K." The facilitator should encourage contributions with positive responses. Further, participants feel proud when another group member spins off of his contribution to offer a new one. This enhances the feeling of group trust and cohesiveness.

As Toffler noted, some events possible for the future may seem unusual or even absurd in the present. Just as some of yesterday's insanities become today's truths, today's absurdities may become the realities of the future. Still other possible realities of the future may not yet have even been imagined. To explore the future it is essential to learn to both generate and tolerate new and unusual ideas. Ziegler (1972) refers to this as the act of "suspending disbelief."

Thus at the end of the brainstorming phase it is hoped that each student's concept of the word future has been expanded and enriched; that each has become more fully aware of the different views and perspectives toward the future held by different people; that each student has become more imaginative and creative, and more willing to tolerate and consider new and unusual possibilities; and that each has begun to examine his assumptions regarding his personal future as well as the future of his society. At this stage people's basic sense of optimism or pessimism will probably not have changed very much. However, in all probability, they are developing a fuller awareness of those feelings and their sources.



Phase II. Questioning

The next phase of the process is designed to follow through on those intended impacts, and to help students work to a deeper level of self examination. Each student is asked to develop at least one question about the future which he would like to investigate further. The question(s) may relate to one's personal future or to some aspect of society's future. Typical instructions to the students might be as follows:

Over the last several days we have spent a great deal of time looking at some of our own views about the future. Lots of questions about the future have probably occurred to you as a result of our discussions–questions about your own future perhaps, or possibly about the world of the future. Your task for this part of our futures exploration is to think of a question about the future you would seriously like to explore in more detail. Take your time, think carefully, and write out your question. Take care to work your questions so they communicate clearly to the other group members.

Perhaps you have a question you wish to keep to yourself. But also write one out that you would be willing to share with the others.

As in the brainstorming phase, students share their questions with each other. The facilitator's role, again, is to help students examine and clarify their assumptions, reduce ambiguity, relate the questions to each other, draw out common themes and so on.

Four types of questions about the future usually emerge, and in the course of discussion the facilitator

may wish to help students identify each of these types of questions. The "will" question asks about a prediction and often implies a value position, e.g., "Will the earth be saved?" The "can" question usually implies that the occurrence of a particular event is desirable and wonders if this event can be brought about. The very act of asking the questions implies at least some doubt as in, "Can the earth be saved?" A more extreme form of this question is the "how can" question. The question raiser seems to want to develop plans immediately for bringing about a desired state of affairs, and again is implying some doubt, e.g., "How can the earth be saved?" The fourth kind of question raises a valuing issue, and implies the asker wants help in examining and clarifying his values. He is in conflict and wants help sorting through this conflict. "Should the earth be saved?" expresses this conflict.

The planning process is geared to provide a systematic examination of one's values—grappling with "should" questions. So, to facilitate the values discussion, participants are asked to write their questions again using the other three forms. Thus a person who writes "Will the field of guidance improve?" is also asked to write out"Can the field of guidance improve?" "How can the field of guidance improve?" and "Should the field of guidance improve?" Our experience has been that the "will" questions are most frequently raised, and the "should" questions least frequently.

With this accomplished the facilitator may easily help participants examine valuing issues, assumptions, concerns, speculations, doubts, disbeliefs and facts behind their questions.

Phase III. Futures Windowing

For many possible events of the future, what is hoped for and what is expected may often be two different things. For example, people may hope for lasting peace but expect more war. Minority students may hope for greater opportunities to obtain more meaningful jobs but expect this to be an unlikely possiblilty.

Field tests of students revealed that many had not critically examined their hopes and expectations about important events in their lives, while others seemed to have confused hopes with expectations. This distinction is drawn in the course in order to help students become more fully aware of, and thus able to more critically examine, both their hopes and expectations. Such critical examination might lead to a change in valuing for some events, and a change in expectation for other events. For still other events where there is discrepancy, we might help students search for ways to achieve goals considered unlikely and to prevent undesired events considered likely.

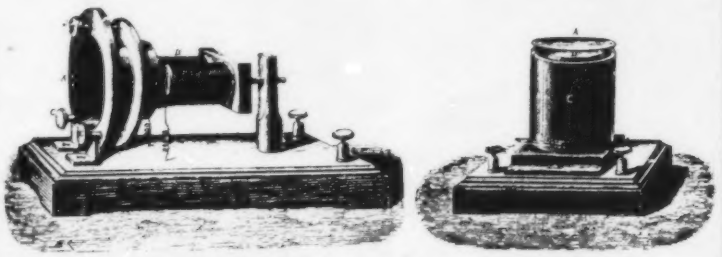
This analysis led to the development of the futures window, pictured in Figure 1.

	Expect will Happen	**Expect will Not Happen**
Hope will Happen	1	2
Hope Will Not Happen	3	4

Fig. 1. Futures Window Matrix

In this activity, the facilitator helps each student fill in all four cells of his personal "futures window." Take for example a boy and a girl, both seniors, who are considering marriage. Both sets of parents object to the marriage. For them, examples of possible future events which satisfy conditions 1, 2, 3 and 4 respectively might be: (1) getting married; (2) having the marriage accepted by both sets of parents; (3) becoming pregnant before marriage; and (4) having to go through a major confrontation about the marriage with the parents.

There are a variety of ways to use this matrix once students understand it. One way would be to ask students to look intensively at one cell at a time. Appropriate instructions might be, "Let's look at cell number one first—things we both hope will happen and expect to happen. Think of as many events as you can that you *want* to happen and also think *will* happen. Do a personal brainstorm and jot them down as you think about them. If you wish you can include some of the things that came up in the brainstorming session we did earlier." When students have finished they should share before continuing on with the next cell. The facilitator should listen for certain events students may wish to discuss in greater depth. For example, one person may say that he both hopes for and expects a lasting peace, while another student says that while he hopes that to be so, he believes there will be continual war. As they discuss the different bases for their expectations, each is learning from the other.



The contributions emerging from cells two and four are the events people fear, and the reasons people seek help from counselors (not getting into college; disappointing one's parents; failing an exam; not getting a job; getting pregnant). The facilitator will wish to be alert for calls for help that may come from this experience, and talk with such students in a more private situation.

Phase IV. Scenario Writing

Scenario writing follows up on the imagining, speculating, conjecturing and values clarifying participants have been doing during the previous phases. A goal is a not-yet-occurred state of affairs that a person would like to see come about. With this definition, participants are asked to think about some goal they would really be committed to achieving: to which they would be willing to contribute time and energy. They are asked to project themselves into the future and imagine that the goal they want has actually come about. Their task is to then write a story, a newspaper article or a letter to a friend "back in the present" describing the occurrence of this desired state of affairs. They are asked to describe what is happening and how things look and feel now that this goal has

occurred. Where are they personally? What are they doing? What new consequences have occurred because their goal has happened?

During the first part of their writing it is important to help participants project themselves to that point in time they have described and to utilize only the perspective of that time in describing their feelings. Then, once they have exhausted their imaginings about their goal event, participants may build on their scenario to describe how things in their future differ from the present. For example, "Now in 1990, because of this new invention, we can control violence. Back in 1973, people seemed to have no control over violence. Back then people went to war, and killed each other for money. Of course we don't have football any more like they had in 1973, but the tradeoff seems worth it."

With the scenarios fully developed, the process of sharing, value clarifying, assumption clarifying, alternative examining, etc. continues. People with similar scenarios can work together to more fully develop each other's ideas. People with opposing scenarios would clearly have much to discuss, and could learn from each other.

Phase V. Understanding the Planning Process

The purpose of the planning stage of the futures process is to help participants learn systematic planning. Up to this point, participants have focused more on questions and issues in the affective domain. Through discussing scenarios, participants will probably develop thoughts on how to bring about their desired state of affairs. Thus, the scenarios offer participants a laboratory experience to learn about the process of rational planning.

Participants are asked to think up possible preconditions that would help to bring about their goal. It is important to think in terms of *desirable* rather than *necessary* preconditions. When a fairly elaborate list has been developed, participants are then asked to generate possible preconditions that might block or interfere with the attainment of their desired goal.

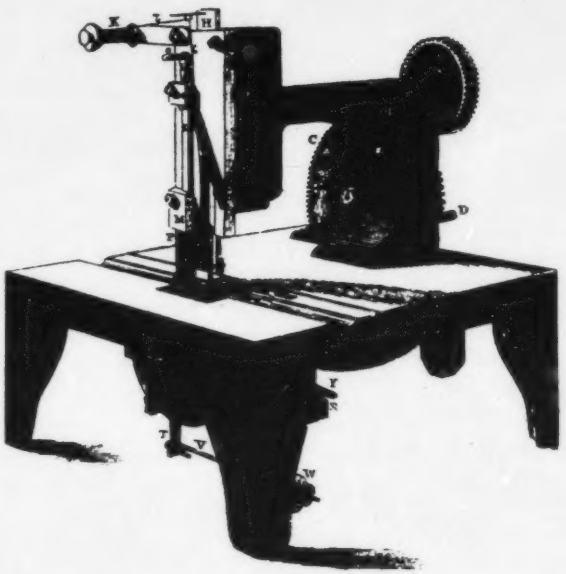
From here the task is to sequence the helpful preconditions. Preconditions frequently require preconditions so participants are encouraged to generate all conceivable preconditions. As a part of this analysis, they also speculate on how to deal with possible interfering events.

As they engage in this analysis it is important to help students think in terms of alternative approaches to achieving stated goals. If one alternative appears especially difficult, other possiblilities must be explored. In this way students may discover that it is more possible than they first thought to achieve a goal. This, in turn, may help them develop a greater sense of personal potency and perhaps a more optimistic stance toward the future.

Some students who have written scenarios involving specific social changes may wish to follow up and learn more about how change takes place in our society: the factors and forces that affect change; the levels of society in which change takes place; who has power and how it is used; how technological innovations effect changes in people's living styles; etc. One approach is to lecture about these concepts, but another is to help students see if they can develop any generalizations from their own experiences and from working on their scenarios.

Developing a comprehensive curriculum for understanding social change is a task beyond the scope of this paper. *The Man Made World* by E. J. Piel is an important source, while Marien lists many others in his annotated bibliography.

The planning analysis stage is quite flexible. Some participants may prefer to work alone; others, especially those with similar scenarios, may wish to work in pairs or triads. Generating possible helpful and interfering preconditions, of course, is a perfect opportunity for brainstorming. At this stage it is important for the facilitator to help each participant feel actively involved in bringing about his goal, not simply laying out plans for unspecified others to implement.



Resources and Materials

A variety of resources and materials are available for conducting such a course. Specific books you might want students to read or consult include: *Future Shock* and *The Futurists* by Toffler (1970 and 1972); *Futures Conditional* by Theobald (1972); *Worlds in the Making* by Dunstan and Garland (1970); and *The Futurist*, a bi-monthly journal published by The World Future Society. Marien's *Alternative Futures for Learning* (1971) is an annotated bibliography which lists over 900 readings on the future, while Martin (1973) has produced an annotated list of films related to futures studies. Piel's *The Man Made World* (1971) has already been mentioned as a possible source to help students understand social planning and decision making.

Beyond the Introductory Phase

The goals and activities described above represent an introduction to the study of the future. The goals have been to engage students in self examination, values clarification and interaction on two basic questions regarding the future: What is possible? and What is desirable? This curriculum has intentionally not emphasized systematic investigation of Toffler's third basic question, "What is likely?" Beginning a futures curriculum with this orientation tends to communicate to students an undesirable assumption: certain events for the future are

highly likely, almost inevitable, and the best people can do is anticipate these events and learn to adjust to and cope with them. This assumption does not help students develop a sense of potency and agency in creating the kind of future they would like for themselves. It is essential for a futures curriculum to help students develop a sense of personal agency so that they may later make serious, planned efforts to contribute to the making of a more human/humane future.

Having completed the introductory phase, a variety of additional themes and topics are both possible and desirable. The scenarios should provide plenty of food for further investigation, either on an individual or small group basis. Some students may wish to explore possible future solutions to contemporary social problems. Some may wish to learn more about possibilities for future transportation; others might choose to explore new approaches to education Some may use their imaginations to develop a planned community. Students who enjoy science fiction might translate the ideas of their favorite science fiction writer into a scenario, for example, "The Future as Seen by Issac Asimov."

Another form of scenario writing, consequence analysis may be of interest to many. This process involves choosing an object and generating the first order, second order, etc. consequences of that object's invention. Objects such as a pencil, watch, automobile, refrigerator, match, printing press, and gunpowder lead to very exciting analyses and subsequent valuing questions. Students may wish to brainstorm possible objects for which to do a consequence analysis (Coates, 1971). As you can see, the process provides for continuous generation of new ideas and new exploratory techniques.

Follow up Activities

To round out the curriculum and to stress the ongoing nature of futures exploration, the facilitator should suggest further growth activities. For example, the facilitator can ask students to identify those goals they hoped to and ultimately did achieve. The *Deciding* Program developed by Gelatt, Varenhorst and Carey in 1972 is another effective follow up tool. It emphasizes evaluating what one has accomplished and how one pursued that goal. The *Self Directed Search* created by John Holland is a worthwhile follow up for students who want help in career choice and planning; other students might benefit from seminars on college choice.

Such activities solidify the student's futures orientation and actualize his sense of potency. With rapid change and uncertainty impinging on us all, such preparation affords a good shield for bouncing away confusion and reflecting the future in a thoughtful, systematic way.

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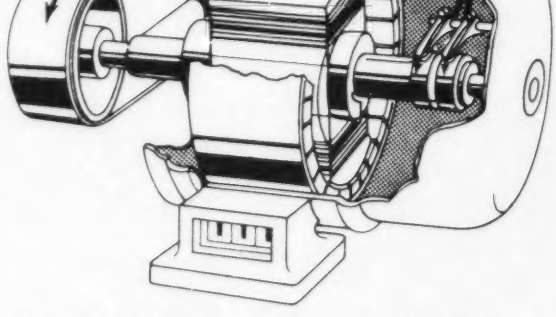

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FUTURISTIC FORECASTING TECHNIQUES

(A Condensed Guide to an Expanding Field)

Within the past decade a number of ways of deriving information about the future have been developed. Some of these forecasting techniques or methods have proven successful in short-term prediction; other have yet to receive the test of time; still others were found to have communications-improving by-products that may ultimately prove more useful than their predictive qualities (the Delphi Technique may prove to be one such example).

Several interesting phenomena have arisen from this quest for predictive accuracy. First and perhaps foremost is that the quest itself may alter outcomes—the old problem of self-fulfilling prophecies. For example, the belief that a recession is at hand may actually drive down spending and clog the country's economic arteries. On the other hand, forecasts may create over-reactions; for example, fear of overpopulation may actually lead to a fall below the zero population growth level.[1]

Another phenomenon has been the profound public realization that if one *doesn't* attempt to predict the future (and guard against future adversity), the consequences may be dire, indeed. Lack of planning, brought on in part by a lack of foresight, has resulted in a plethora of social and environmental ills for which we have not been prepared.[2]

Still another phenomenon or outgrowth of the futuristic quest has been a rehoning of our use of reason, scientific method and common sense. We have begun to realize the necessity for accuracy and quality in our predictions because technology does seem to be growing exponentially in relation to our human capacity to understand and absorb it. Thus, time is more valuable now than ever before, and quality predictions save us valuable time. According to two Institute for the Future members, six indicators of forecast quality are: 1) specificity of original input data (i.e. know what questions to ask, what variables are relevant, how accurate your information is); 2) accurate statement of the probability or uncertainty of events; 3) the relationship of events to time—not time per se but explicit stages of growth, development, and change within a time frame; 4) the intra-field relatedness of an event (i.e., the extent to which it reflects a full spectrum knowledge of other events occurring within the same field); 5) interfield relatedness or the interface with other outside disciplines and 6) the extent to which the costs and benefits of an event are taken into account.[3]

A final and somewhat ironic phenomenon is that futuristic forecasting has been catapulted into a very sophisticated science by the technology it was designed to predict—primarily computer technology. The advent of "canned" programs has given a number of people with special knowledge about trends, models etc. (but minimal statistical or computer backgrounds) access to the forecasting field. Curves can be plotted and extrapolations made in microseconds. Greater human insight can be amassed more easily. Secondly, data that could not be correlated or made to interact previously can now be filtered through the computer to produce more comprehensive patterns. Computers do not predict the future but they do, because of their great speed, enable researchers to explore alternative methods for analyzing their data which in turn, may reveal new and different forecasts.[4]

New forecasting techniques or methods are continu-

ally being developed. They arise from existing ones like the phoenix from the ashes, each time more complex, more synthesizing and incorporative of what went before it. However there are several basic, distinct methods.

Intuitive Forecasting is the oldest, most historically popular method. The oracle, the prophet, the wizard, the expert—that is, the person possessing the greatest sensitivity to or knowledge about an object or event is expected to be able to project that object or event into the future. This predictive form has become more than mere guesswork but it still relies primarily on individual judgment, creativity, intelligence, and probably, luck. Although as one futurist points out, intuitive forecasting is "impossible to teach, expensive to learn and excludes any process of review," few futurists minimize its importance. The expert is still the basis for all other predictive methods.[5]

Consensus Methods solve some of the problems inherent in intuitive forecasting. These involve the use of panels of experts who provide opinions, intuitive thoughts, data and other expert testimony—but interaction is the key difference. Panelists' interaction is intended to assure consideration of aspects a single expert might overlook. A familiar form of consensus method long in use is the jury system used by the courts.[6]

A prominent new form of a consensus method is the Delphi Procedure. This procedure has three advantages: 1) it helps to eliminate individual biases, 2) it discourages a "follow the leader" syndrome because of its initial structure and 3) due to its follow-up structure, it reduces panel members' reluctance to abandon or revise earlier opinions (a problem often encountered in group meetings). First, panel members are chosen. This stage may be a crucial one for the choice of panel members could, of course, influence outcomes. Thus, the people who organize such panels attempt to draw from a variety of disciplines and outlooks. Next, panel members are asked to respond to questionnaires independently of one another. This guards against group pressure to answer in a certain manner. Third, the questionnaire results are presented to panel members for revision (they are encouraged to re-examine extreme opinions in particular). Usually this feedback causes originally divergent views to converge to consensus.[7]

The Delphi Procedure frequently appears as a sophisticated, computerized process called the Delphi Conference. By plugging into a local computer terminal, panel participants can engage in an ongoing symposium—submitting new ideas, revisions, refinements and pertinent data to develop a progressively more complete picture of a future event. The computer has many plusses. It maintains a current record of the status of the conference; it provides immediate feedback and immediate opportunity to input data at the panelists' convenience; and it enables simultaneous interaction and participation by hundreds or even thousands of people thousands of miles apart.[8]

Another variation of the Delphi Procedure is the Recursive Dialectic Method. This procedure is philosophically allied with Kant's and Hegel's idea of Thesis + Antithesis = Synthesis. That is, a panel generates opinions and consensus items as in the Delphi Procedure but they don't stop there. They go on to offer a counter argument, proposal, scenario, event or whatever. The effect is

that often the forecast and counterforecast will actually result in a much revised, and hopefully better, forecast.[9]

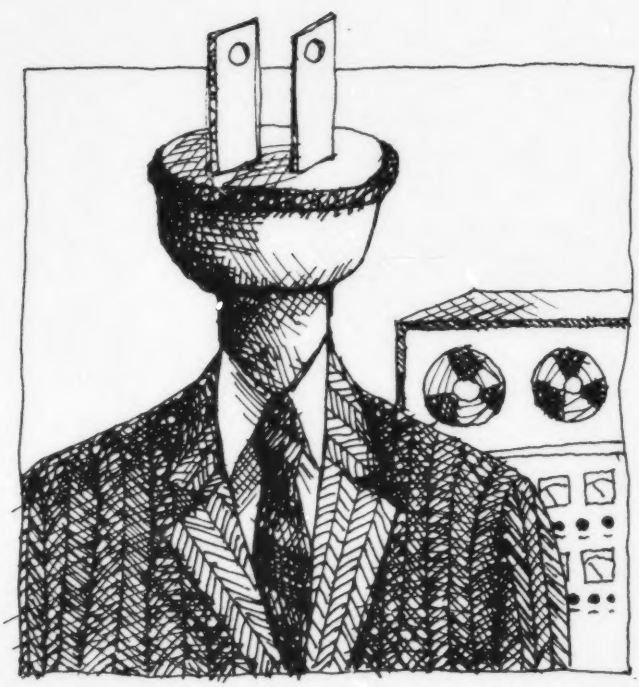
Forecasting by Analogy is another recognized method of prediction. For example, in recent years, many analogies have been made to Thomas Malthus' exponential growth model. Malthus predicted that population would outstrip food production because population growth increments are multiplied whereas food production increases arithmetically or by a simple addition process. A modern day analogy could be made to energy consumption and available supplies of certain kinds of fuel.

Although often quite workable, analogies can be dangerous. Some things to be aware of in forming analogies are: 1) loose analogies are an unsound basis for forecasting; 2) events examined for similarity must be a fair, representative sample of all possible similar events—some historical events are unique and cannot be made truly analogous to anything else; 3) an analogy may be destroyed because people are aware of the outcome of a past event and do not act similarly; 4) an analogy must take progressive trends, not isolated events, into account—this separating out of trends requires much research and analysis; 5) it is useful to have a set of dimensions (important elements of historical events in specific, factual terms) on which events can be analyzed to determine their degree of similarity—e.g., a single event may have many dimensions one should consider: social, political, economic, technological, managerial, intellectual and so on.[10]

Morphological Analysis is a distinct new forecasting method. It is one that requires the same scrupulousness recommended for Analogic Forecasting and the same "negative" thought used in the Recursive Dialectic Method. Morphological Analysis consists of first identifying all possible means to achieve an end. The mere act of cataloging *all* possibilities may reveal opportunities for new developments for which there may not currently exist the necessary technology or human capability. Secondly, "contingency trees" are designed which branch further and further into specifying these developments or delineating alternative outgrowths of ideas nearer the trunk or base idea. This particular method is best employed by predictors who possess an intimate knowledge of a field of technology.[11]

Trend Extrapolation Methods comprise the most simple and yet some of the most sophisticated of futuristic forecasting techniques. A forecaster chooses some aspect of an event, or more often of a technological development, which can be expressed quantitatively (e.g., aircraft speed or productivity in terms of items produced within X hours) and plots this on a chart which shows the number achieved and the time when it was achieved. The chart is then examined for trends which can be carried or extrapolated into the future. The difficulty in arriving at trends is that what may appear to be a trend is merely a cycle (an event which may be repeated—or seemingly repeated—only a few times) or a random (an event which has a mathematical probability of occurring but which has no lasting effect on trend development.)[12]

Trend extrapolation methods can be divided into three major categories: projection, precursors, and multiple trends. The simplest and most direct method is that of trend projection. If the plot of achievements versus



time shows a well-behaved pattern, e.g. the points fall on a straight line, then this trend is simply projected into the future.

The precursor method depends on finding a relationship between two characteristics, so that one tends to lag behind the other by an almost constant interval.

Multiple trend forecasting involves the forecasting of some characteristic which does not, in itself, exhibit a clear trend, but which appears to be related to two or more other characteristics which do exhibit well-behaved trends.

Structural Modeling (which often incorporates trend analysis) is yet another in the developing series of forecasting methods. The Club of Rome researchers at M.I.T. who wrote *The Limits To Growth* used a form of this method to derive their pessimistic predictions about the world's resources. Essentially, Structural Modeling involves developing a mathematical model of a technology-generating system. For example, in predicting the future of an industry a forecaster would build in a variety of factors such as employee turnover, rate at which new workers are trained, expenditures on facilities, degrees of profit maximizing, and other trends and factors and would attempt to establish all possible interactions and causative events that could be produced. Here again the computer enables forecasters to incorporate a dazzling array of real data into their theoretical systems.[13]

Footnotes

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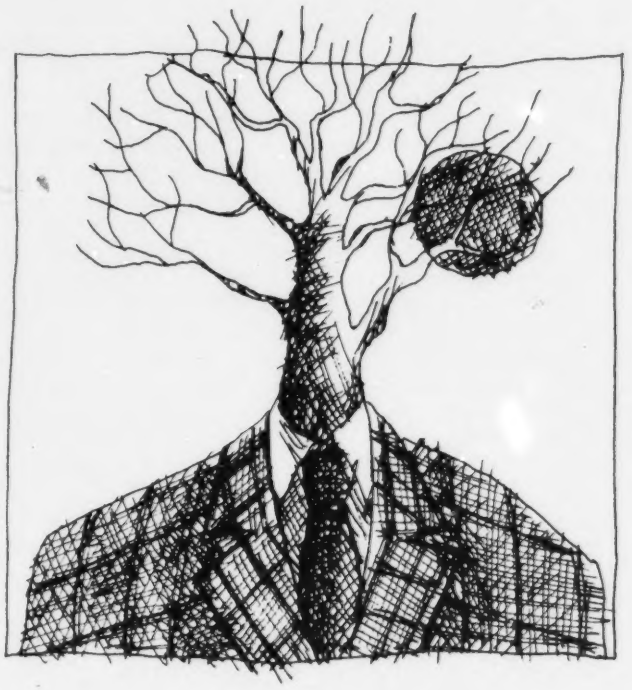


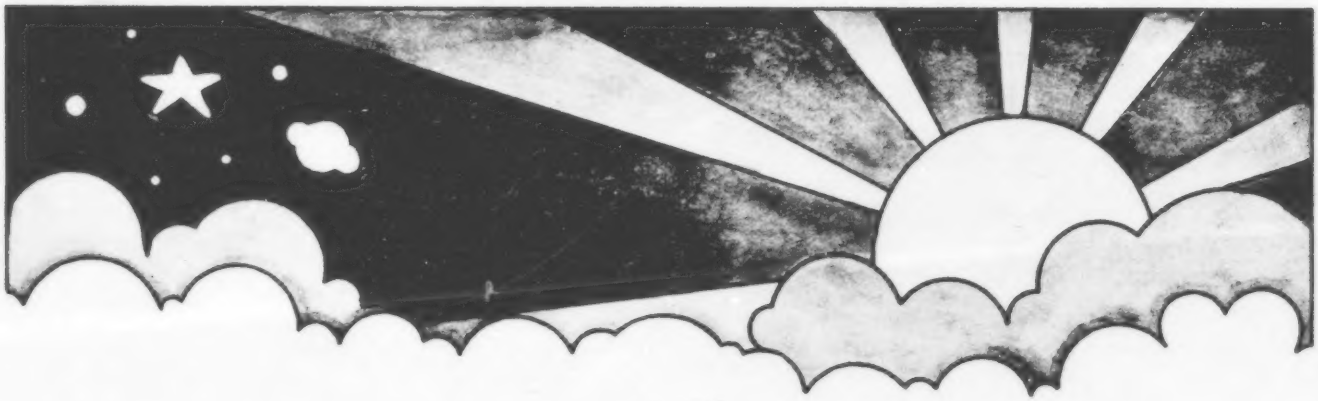
"Is style everything?" "No."

In "The Snows of Kilimanjaro" Hemingway supposedly satirized F. Scott Fitzgerald as the man who "would never write the things that he had saved to write until he knew enough to write them well."

At Hoffman (Minnesota) High, junior and senior English students are exposed to human subject matter—but they're not allowed to wait to write about it. Part of their assignment is 50 hours of actual community service in one of three community institutions: a home for the retarded, a home for the elderly, and an elementary school. Students and the people they are helping engage in both informal and structured activities—crafts, hobbies, therapeutic excercises, speech therapy and so on. Another integral part of their assignment is three papers on the people and institutions they've learned about.

An unusual aspect of the program is its training component. Students receive ten hours of training prior to their institutional work. In preparing for work with the elderly, for example, they are trained in techniques and assigned readings dealing with physical disabilities, depression, anxiety, death and dying.

During and after their service work, students write a case history of an individual they've worked with, a description of a problem in each of the institutions, and possible solutions. When they finish their field work they must analyze four case histories of persons similar to those they have helped.



Editors' Foreword to The Galaxy Gazette

No News Is Bad News

The following clumping of articles and tidbits comprises a possible newspaper of the future. We caution ourselves to use the word "possible" because the newspaper of the future may well be—like a Schmoo— anything you want it to be, a combination of items from a veritable universe of possibilities. It is possible that the person of the future will punch the home computer keyboard to retrieve the news that corresponds with his/her information needs, or even one's personality and mood (All the News That's Fit to Print-Out?).

This particular array of news articles represents the *Impact* staff's sojourn into the blue horizon, the timeless mist, the gaping vortex we call The Future. Some of these articles are based solely on wild guesswork and fantasmagorical flights of mind. Others extrapolate from what we know; they're what you might call calculated guesses. Some are soberly serious; some downright silly. The point, of course, is that the future is a complicated mix of what we know, what we hope for, what we strive for, what we actually do—and what we cannot forsee—the unexpected.

We gathered these views to provide you with something of a launchpad for your own thoughts (and those of your group, class, etc.), so you can take off on your own image-ing, imagining journey.

If you are especially pessimistic about the future of the world—the environment, scarcity of natural resources, cope-ability with technology, and so on—you may conclude that no news is the fate of humanity. You may be a growth advocate, enthusiastic about the good technology can produce. Or, you may take a middle road and view technological advancement as good *as long as* people stay in control and direct the course of events in a more planned-for manner. This bipolar controversy—pessimism vs. optimism about the future—is why the future, and concomitantly the study of the future, have become such big issues.

Technology has thrust us into an uncomfortable (some would say untenable) position and has made us realize we *can* go to far. This era of Deism (deactivate, deescalate, defoliate, defibrilate, detoxify, decomplicate and on and on) may prove to be beneficial. By backtracking for a while, by regressing, we may actually be doing ourselves and our progeny a service. That's what the study of the future boils down to—making sure that when tomorrow arrives, we *have* a future.

We invite you to join us in the netherland of Out There and Then; we hope you will find this not only enjoyable but helpful to you in stirring your own futuristic nerve endings.

GALAXY GAZETTE

Atomic Heist Averted At Albion Site

"An abortive attempt at nuclear theft was thwarted today due not only to scrupulous advance planning but to quick thinking and human intervention," AEC spokesperson Theo Marquist said today. "Fortunately, this attempt did not pose a direct public threat."

A nuclear interterminal transport agent, Jerome Brown, became suspicious of noises at the Albion Fast Breeder Reactor Site and quickly reported this to inventory detection specialists. They, in turn, discovered two men attempting to remove radioactive materials from Unit 411.

"Serious though this threat was," said Marquist, "it was not as potentially catastrophic as it might have been. Our agency has created a number of safeguards from this sort of thing and today we saw one of them in action. We only partially purify our uranium 233 and plutonium via the 'hot atom' method, leaving the materials semi-radioactive. Thus, they can only be stored in massive containers—too expensive for anyone to completely purify and too heavy to transport without immediate detection. When our detector specialists caught these men they had managed to move the cannisters only a fraction of an inch even with the aid of a hydraulic lift."

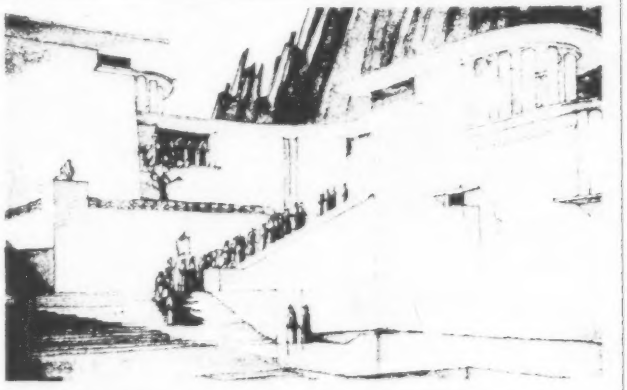
Book Notes

Lunar Escape
by Clare Wittingham.
Phila-Boston: Star & Co., 2020
$19.95 hardcover, $22.95 compcover

Fifty years ago this book would have been classified as science fiction. But today, astronomers and physicists are paying attention to Ms. Wittingham's thesis that the earth may lose her only moon. The theory is based on three sets of changes that have happened to the solar system since the 1970's. First, the surprising number of comets that have entered the solar system since Kohoutek passed through in 1973-74. These passages have upset the intricate gravitational relationships that keep the planets and moons in their present orbits. Another change comes from the planet Jupiter, shown in the 1970's to be contracting in size, whose rapid shrinkage and atmospheric shifts have amazed the earth's astronomers. On the other hand, the mass of the moon itself has grown considerably since we built cities there both for research and to help ameliorate the earth's overpopulation.

Astronomers already know that the orbit of the moon has shifted and expanded in the past 20 years. Ms. Wittingham proposes that it will—sooner than we want to admit—break out of its earth-orbit, become a planet, and assume a solar orbit.

The final half of the book poses serious questions that demand our attention. Should we attempt to decrease the mass of the moon by moving millions of people and building materials back to earth? To ignore the possibility of lunar escape, on the other hand, could mean allowing all of these people to hurtle, uncontrolled, out into space. Furthermore, Ms. Wittingham notes—even if we do shift material back to earth—the moon may already be on an irreversible escape course. What she sees, then, for the planet earth is inevitable stagnation; the absence of tides, of growth cycles—which have been found to be moon-related even when planets are grown under otherwise artificial conditions—of human and psychic patterns. "And when this happens to the earth," Ms. Wittingham decides in her truly frightening last chapter, "there is nothing else to do but leave."



Now Open for Your Inspection—Atlantis West

Ideally located in the underground complex beneath Fisherman's Wharf lies Atlantis West—a new concept in housing, designed for your every living comfort. Directly linked to the Bay Area Monorail as well as the Cross-Bay Hydrafoil, Atlantis West boasts 2,000 units, each with two bedrooms, two activity rooms, dining area and bath.

Lighting by Aqua-Sun is connected with the Nite-Lite system to provide daylight as well as gradual darkening. Window spaces are fitted with handsome recessed dioramas of old-fashioned landscapes—no more yardwork to worry about! The two activity rooms provide separate space for different family member interest. Each activity room, of course, has a built-in televideo communicator which picks up special, surface and aquatic wave lengths. The dining area is linked via computator to the food service preparation division of General Motors so that instant and varied dining pleasure is always at your fingertips. (Billing is monthly).

Laundry and child care centers are, of course, available.

GALAXY

Former Auto-Maker Surprised by Modern Safety Devices

Detroit Dist— WPI— Leo Waldman, part of a 1985 cryogenics experiment, was thawed and successfully treated at Orion Medical Facilities Unit 7 last week.

Waldman, a former auto company executive and safety device specialist, was mobile for the second day today and agreed to an interview. His greatest surprise, he told reporters was learning of the development of autosensor devices for pedettrians. Waldman, who was instrumental in pioneering the adoption of inflatable safety bags to cushion car passengers from trajectory/impact accidents, expressed immediate interest in the transitcapsule accident rate. He was amazed when his reorientation team told him that no transitcapsule fatalities had occurred in 20 years and that personal sensor equipment protected pedestrains from service vehicles still operating in the commercial centers.

He was also intrigued by a number of design innovations that had been applied to long distance travel vehicles over the years. "The pictures of the cars I've seen look so clumsy, so bulky," he said. "I guess that's because of all the new safety features they've added. I couldn't believe the one about the bumper that extends several inches with incremental increases in speed—it makes impact virtually harmless at up to 60 miles per hour. And the speedometer readings projected on the windshield!"

Other innovations Waldman cited as nonexistant in his auto executive days were: computer registers and automatic car function and speed control; psychtesters for angry or incompetent drivers; the development of nyphaprotoline for use in the construction of energy absorbing fenders and as a substitute solid propellant fuel; triangular-convex tire structure; and flexible, fixed side glass to cushion impact blows.

When asked what he planned to do upon recuperation Waldman replied, "Go for a drive."

Entertainment Highlights
by Homus Ludens

Start off your evening the old-fashioned way at Gram's Restaurant, just off interloop tube 5 at Westplace. Gram and partner Gramps, two prematurely grey septuagenarians, will serve you homemade goodies at a table. Whole grained cereals, fresh fruits and vegetables grown on their rooftop garden, real dairy products and a cozy warmth you may not have experienced for a while. Gramps built this quaint but charming home himself out of recycled aluminum containers, marble quarry tailings, fly ash, crushed glass and Preconversion tire scraps. Somewhat high priced but well worth it.

Tuesday at 9—Amphitron Hall—Biofeedbach Concert by Arthur Trumpler and the Poststone Bops. Tune in to the classical sound and measure your response. Latest physiological equipment and comfortable surroundings that touch back. Admission: two energy exchange coupons per person.

Sanitain · "Memory Lane Filmfest"—Starts Wednesday. Featuring Amitelli's "Herodytonium," Kharmana's "Planet of the Plutocrats," and Selznik's "Gone With the Wind" plus many more. Punch 657-99-0007 for times and listings.

Translunar Tube Completed

The last section of the Translunar Tube was completed today between Lunar City and Central Complex. The tube, which has been under construction for the past three years under the auspices of the Lunar Authority, will provide underground transportation between the municipal air locks of Lunar City and Central Complex. The completion of the tube means that transportation between the municipal air locks of both cities can now be completed in less than two hours.

Obituaries

From Rags to Riches to Rags

America's blue collar worker is a legend now. Total automation in the factory setting took the life of the common laborer early this morning at the UAW headquarters in Southfield, Michigan. "You There," as his immediate supervisors called him, was an unknown just 200 short years ago. Yet, in the past 200 years, this nobody special, run-of-the-mill industrial component dominated the American working scene. His role began as a very laissez-faire individual in the early American Industrial Revolution, and later in his career he gained strength and recognition through the union organization. His trademark was his soiled blue collar shirt.

He received his start as a grimy coal miner in the foothills of West Virginia. Here he first endeared John L. Lewis with his hapless and oppressed state. As a young man preening toward adulthood, this common laborer saw the union as his protector against oppression. During this time every American appreciated his value to the economy. It was the sweat on his brow and his honest efforts at work that made every superior and organization head appreciate his muscle in producing marketable commodities.

You There had the peculiar trait of living the simple life. He loved success, and he loved money. Money for him was a means of getting to the good life. Also, promptness to work and a high level of productivity gave the outside appearance that he was a natural for what he did. Nevertheless, social scientists claimed that he seemed to be moving through the world of work without really doing his own choosing. And even though his behavior had been studied intensively, little was done to improve what he did, how he did it, and where he did it.

The one mystery that centered around the blue collar worker was his reluctance to fully embrace the concept of automation. We recall that during his middle years of 1960-1980 laborer received more notoriety than fame. Automation, a way to the good life, claimed to be laborer's friend. Laborer never saw him in this light and staged dozens of strikes and shutdowns to protest what automation was doing to him. Later in those same years, laborer was sentenced to jail and fined for his outward expression toward automation. But he proclaimed his innocence and charged that his actions were justifiable.

It is surprising that outside of a few contract concessions nothing was done to aid You There in his fight against automation. He remained independent throughout his working life, and he never even tried to join the ranks of the contemporary Unions of Computers and Robots (UCR). Then yesterday at the Southfield UAW headquarters the last blue collar union was disbanded.

The main informational resources we have on blue collar workers is data accrued in studies and listings found in company files and data banks. Yet, nothing has been written about how he felt or what motivated him to make American industry a success. Little was ever written among the ranks of his peers about the agony and frustration he encountered in trying and failing to find the good life. Today the American blue collar worker became an extinct species. His is a story of rags to riches to rags.

IQ Fails the Big Test
by Frank Biasco

Mr. IQ died today. He leaves behind two children, Intelligence Score and Academic Aptitude. Many believe them not to be legitimate offspring, thereby raising a serious question as to their relationship. An autopsy will be held to determine the casue of death. It is believed, however, that he died a natural death after many years of service.

Mr. IQ was a member of

GAZETTE

many professional organizations all of which were overdependent upon him. Some of these were APGA, AERA, NCME, and APA as well as many regional and state organizations. There will be no funeral services, burial will be in the Everlasting Cemetery alongside other mystical figures. Pallbearers will be those text and publishing companies that had a profitable hand in his growth and development. Although he will be missed, his image will remain in the minds of many for years to come. Contributions may be made to the "Society For Preventing the Misuse of the IQ."

Mr. IQ was the son of Mr. Binet of France with whom he lived until he was brought to Stanford, California. He resided in many American communities and was honored and respected by all who knew him. He was a veteran of World War I and II; it was at that time that he received his greatest support.

Survivors include the many school systems that depended upon Mr. IQ for their success. With his passing, their future appears uncertain.

Copyright© 1973, Frank Biasco, Coordinator, Counselor Education Program, The University of West Florida.

Wanted

—Calmputer Analyst to perform mechanical operations on malfunctioning mechanical minds. To qualify you must be able to deal with injustice in and elimination of the system (GIGO); know transistor analysis; have facility with testtube babies and Hondas. Other qualifications include personality and intelligence factors equivalent to those of Freud, Svengali, and Mr. Wizard plus ability to cope with acute mechanical and electronic failure, work with bolts and live with nuts. Preparation and training to include proficiency in MAD, SNOBOL, and BASKITBOL, muffler installation, tape recording and erasing, degree in data manipulation. Earnings: an opportunity to gain wealth and power and to accrue a lot of insignificant but bit-rich information. Apply D.O.T. (8F3.0, x6).

Entropy Dissipator. Mature, stable person with three or more years field experience and appropriate training credentials needed to assist small firm in employee-inforputor cyberrelations program. Expert analytic, organizational ability and warm personality a must. Must know COBAL, ROTAL, MAXI, MERTYL and be willing to learn INTERAL and MACHIT. Contact Sally Methuse, 167-00-8791.

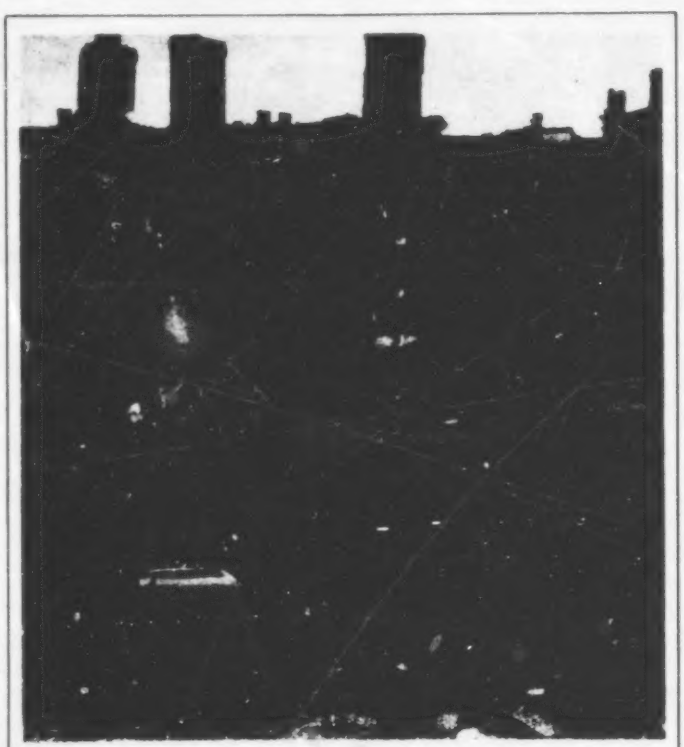
One Person/One Vote Effected in Ohio Town

A ceremony at West Liberty, Ohio received nationwide attention today. The installation of computerized voting terminals in every registered voter's abode in West Liberty (population 1,500) makes Ohio the first state to fulfill the requirements in the nationwide program to return to a pure democracy. Now all voters in Ohio can tune into the marathon voting station and, at any time during the designated period, cast their yea or nay vote for the issues currently before them.

In addition to alternating between acitivities on the floor of Congress and House and Senate committee activities, the marathon station also provides a computerized summary of the facts surrounding the current issues in several languages, which can be picked up on by the household computer. By switching to a second station, voters can get an audio summary of this same information.

Since the initial implementation of the system, attendance at congressional sessions has nearly doubled. Senators and Representatives formerly spent much of their time responding to voter queries on confusing issues.

The mayor of the village received a hearty laugh from his audience when he commented that as a result of the program, "People in West Liberty have a renewed interest in legislation because key punch operators have now replaced punchy key operators."



One More Campus Collapse

The earth-shaking sounds you heard early this moring resulted from the final collapse of the Humanities Building at Old State University. Built in 1934, the structure last housed college students in 1975, after which time interest in the discipline rapidly faded as students became more job-oriented. With the increasing need for technical, medical and scientific personnel, interest in the humanities has waned almost to the point of extinction. Only three institutions of higher learning in the entire nation still offer degree-granting programs in this discipline.

The abandoned building, like so many others across the nation's campuses, has been a source of derision for many years now. The legislature has steadfastly refused to appropriate funds for demolition; it will have no choice now.

Another college building has hit the dust, and no one gives a damn.

"Fatemate" Program Announced for Human Relations Institute

The director of the Human Relations Institute, Dr. Emmet Krull, today announced the expansion of HRI to include the newly formed Department of Mate Selection and Contracting.

Under a recent mandate this new department will handle the compulsory computer mate selection and marriage contracting duiies. Marriage contracting had been performed jointly by the Population Planning and Inter-Medical Institutes.

Explained Krull, "This new department should be a more expedient and efficient way of handling these operations. Computer mate selection and marriage contracting is now compulsory and will affect all males and females under 13 years of age as well as any marriage contracts drawn prior

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to June 1 of this year." Jaqueline Hailley, former life adjustment facilitator for the Life Adjustment Counseling Department will direct the mate selection program.

Dr. Krull also indicated that all facilitators at the Human Relations Institute responded positively to the addition of the mate selection program component. "We feel it will be quite valuable in helping city residents in this very critical area of interpersonal life adjustment," he said. "It will also enable the population and medical institutes, which were previously involved, to expand other and more pertinent aspects of *their* programs."

Inventions of Yesteryear

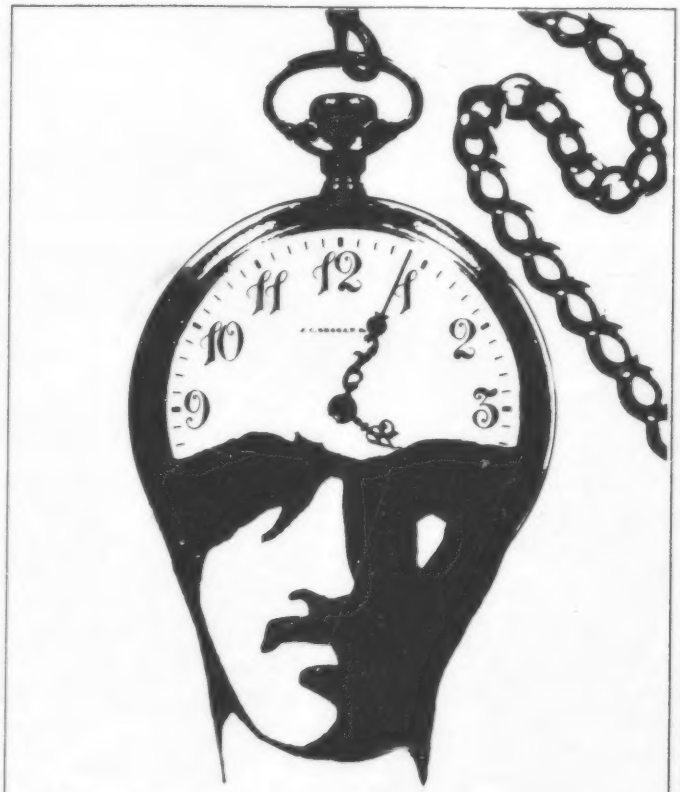
As a regular feature we present capsule summaries of inventions that appeared early on the Envelope Curve to keep you in touch with your technological roots. Today's discussion focuses on the perpetual motion machine, worked on as early as the 13th century when a man named Villard de Honnecourt drew a diagram for a weighted wheel that was supposed to create enough energy to overcome the force of its own friction. Editor's comments below are bracketed.

200 Years Ago Today:

An 85-year-old backwoods farmer, Jake Jackson, made the television spotlight today when it was discovered that he had devoted most of his later life to the invention of a machine that would defy the known laws of physics—a perpetual motion machine. The 14-foot conglomeration of cogs, wheels and gyres, gathered from refuse dumps and junk shops [biodegradtion and recyclification were primitive processes then] is a daily project for the alert blue-eyed Swedish immigrant. "I've just about got it right," he claims, "just need the right parts, that's all."

Update:

Such a machine, even now, has still not been perfected. But Jackson is still working on it and claims he is about to make a breakthrough any day now.



Watches Unwind, People Wind Up

Remember the days when time was on your hands? The days when watches were to be worn on the wrist and wound? When bands were bound to break? Check your local museum for timepieces of the world if all this was before *your* time.

And then consider the latest product of Timely Jewels, the Chicago-based time firm. They have successfully tested and are now marketing the "Time Capsule." This capsule, taken annually on January 1, provides an inherent sense of time to the one who ingests it. The person taking this capsule no longer need go through the process of wondering what time it is, checking his or her watch and registering the hour. Now acknowledging the time is as automatic as announcing your name.

As part of the testing process, the capsule was administered to 700 elementary, middle school and high school students—the total school population of one district. As a result of the test, this district has eliminated late slips from their standard list of forms. Keen time awareness has made it impossible for students to ply their usual excuse.

The most delightful effect of the time capsule was on timed sports in the school district. Track participants who formerly depended on how they felt for an indication of the time they were making on a particular run, found they could clock themselves and more consistently guage their efforts. (Sports announcers, and most certainly time keepers, are in for a recession).

For persons traveling into different time zones, additional capsules are available at minimal cost to provide the necessary adjustment. The cost of the capsule is about one third the cost of the electronic apparel watches currently so popular.

History Snaps Back

A team of oceanographers reported finding a live, 26 pound Homarus Americanus or lobster off the shore of Cape Hatteras yesterday. This creature is believed to be the largest non-captivity bred lobster discovered for over 100 years. The lobster, a female, is estimated to be 65 years old.

Many scientists had contended that the species, in a natural state, was extinct and that wild Crustaceans of this kind, and particularly of this size, had not been seen since the early 1800's.

Noted one scientist, Alvin Werner, "During the 19th and 20th centuries hatcheries were a rarity; lobsters were caught prior to maturity when they were approximately five years old and weighed one pound. Often the females were taken before they had a chance to hatch their eggs, so they seldom grew larger than 15 pounds before being caught. Furthermore, there were no international agreements prohibiting their capture during immaturity. And, of course, waters containing high concentrations of oil and refuse gas resulted in scrawny little lobsters often unwilling to eat or mate."

Today's domesticated lobsters, which average five pounds, are, of course, in abundance now. Once removed from ocean waters where pollution and temperature variables interfered with mating and larval maturation, lobsters became more readily available to the public at reasonable price. The Rhode Island Oceanography Department was the first to create lobster development tanks in conjunction with nuclear thermal cooling plants (lobsters were found to thrive best in 70°F. water). Genetic selection and other biological engineering efforts enabled scientists to reduce the cannabalism once prevalent in captivity bred lobsters. Dietary improvements (e.g. brine shrimp and sea-

weed coagulent feed) also contributed to the relative ease of placing steaming, succulent lobsters on our plates.

The newly discovered lobster, now nicknamed Shelly, will be placed alone in an observation tank. Said one of the oceanographic team members, "We think it's probably best not to introduce her to other lobsters for awhile, at least. Although she appears to be pretty spry, her hermit's existence may make her wary of other briny creatures."

OEM Issues Recall on Home Fueling Device

The Office of Energy Management today issued a recall warning to purchasers of the Compusol solar condenser and storage unit, Model 1041. Compusol is a product of Sol-All Industries.

OEM's response was prompted by Consumac, an independent consumer group whose testing revealed defects in the unit's defractor mechanism.

Consumac product tester Geraldine Brenstorm told newspeople that the unit's fuel efficiency is diminished because the defractor scatters energy beyond the catch-pattern mechanism. Says Brenstorm, "Private consumers are the ones whose home fueling costs will be highest because only the smaller units bear this defect." Brenstorm added, "Although the device poses no serious hazard, we are asking owners to return their units for refund or replacement."

OEM confirmed that Sol-All is complying with the recall order.

"Vagabond" to Carry Individualistic Inscription

Astronauts Claude Griffin and Estelle Maitland placed an inscription tablet on Vagabond, the wandering information gathering and transmitting telecommunications satellite, today as they docked for an inspection tour. Said the astronautical team, "We dedicate this satellite to the enduring spirit of adventure and personal positivism that has characterized our space program. The inscription, a poem, was written by a citizen of the USSR long ago when the individual spirit was chastised. We feel it has made the new nations which have emerged as great as they are." The inscription reads:

Γνωθε σεαυτον

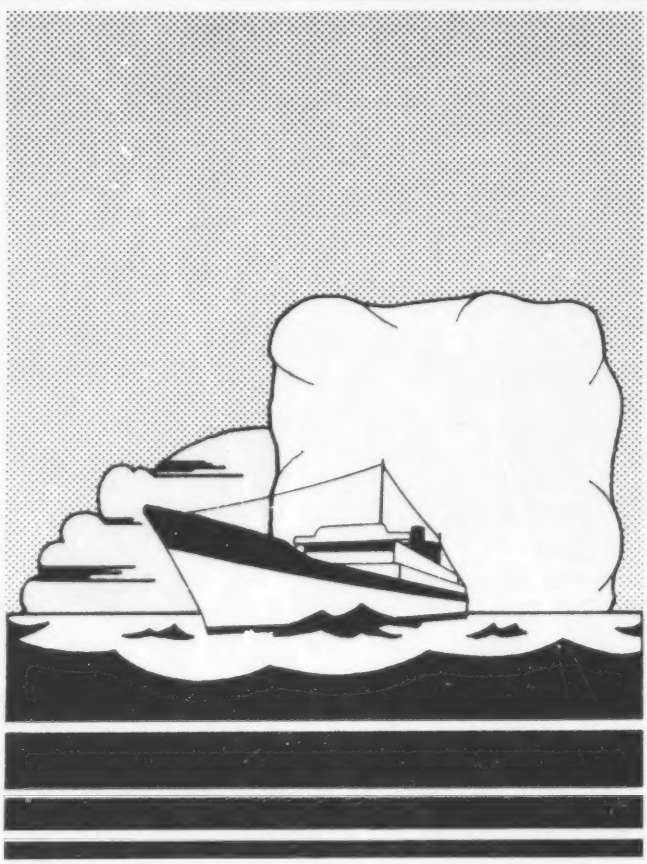
(Know Yourself)

Have you ever set out on your
own personal hegira?
(doingyourownthing)
Muhammed
did once and I did too—
It was hard and I smiled.
It was easy and I cried.
I met a Greek sage
along the way
He said
Know yourself

Have you ever visited the holy
lands in your adventures?
(Part of that ole time religion)
Jesus walked there once and I
did too. They wrote about Job
and I tried to suffer with him.
They talked of silence
I didn't answer;
I was mute and never asked
about the Greek idea
Know yourself

Have you ever stopped in
Athens, Rome or Spain upon
your way?
(Trippin' off again)
Homer, Vergil, and El Cid lived
there once and I did too.
They drew word pictures and I
watched
They sang in odes and I
became a dreamer, a robot.
The words of my Greek friend
seemed distant
Know yourself

Have you packed your bags far
off for another land?
Another far off land?
(Off on another ? trip)
Muhammed found his Medina.
I didn't.
They said I stopped but I say
no.
They call me "ex"
I see me "new"
I heard the words of a gadfly
telling some artisan
Know yourself



Iceberg "Neill" Arrives Tomorrow

Los Angeles Dist. (WPI)—The second freshwater iceberg will arrive at Central Port today, nine months from the time it began its 'journey' from the South Pole. Neill is named after one of the men who conceptualized this method of providing the Los Angeles area with an abundant supply of freshwater, plus leftover coolants for local nuclear power plants.

Neill is being transported here with the help of icebreakers and an escort ship, and wrapped in plastic to deter melting. The berg was outfitted with cable attachments and propellers to assist the U.S.S. carrier *Cubelock* in moving the giant structure.

Residents will be glad to hear that the per acre-foot price of Neill is down $15 from the previous berg. Officials here estimate that Neill is equivalent to one-fourth the capacity of old Hoover Dam.

Historian to Cite Counseling Legacy In Speech Tonight

Noted historian Kenneth Johnston will speak tonight on weekly video-phone in-service training for the nation's counselors. The theme of his presentation is "1973 Futuristics—Now!" In light of current visions of total student access to personalized computer feedback on the logic of any kind of decision that must be made, Johnston is trying to reawaken in counselors the enthusiasm and concern for the future that he feels saved the nation from disaster after the crises that occurred in the seventies. Consult your guide for channel access and zone time.

searchlight

(Relevant Resources in High Interest Areas)

Searchlight Updates Now Available

Searchlight focuses on relevant resources on topics of current interest to counselors. Each *Searchlight* includes a bibliographic listing with abstracts and annotations. Citations are taken from three major sources: (1) documents submitted for inclusion in *Research in Education* (RIE); (2) journals selected from over 500 journals screened for the *Current Index to Journals in Education* (CIJE); and (3) *Dissertation Abstracts International*. Order form and information for ordering complete documents are included in each *Searchlight*.

Searchlights 1U-5U and 8U-12U were compiled by Karen Shill; 7U and 13U-16U were compiled by Ronald R. Kopita.

The following *Searchlights*, covering the period July, 1971 through March, 1973 are now available at $1.00 each. Use our handy order form.

1U—School Discipline and Student Rights
The defined civil rights of students at the high school and college level, and recent legal pronouncements. (92 documents retrieved)

2U—Counseling the Pregnant Teenager
Attempts by several school systems to provide medical, psychological and educational support for this population group in order to prevent dropping out of school. (14 documents retrieved)

3U—Articulation
The mutual relationships for the implementation of long-range educational objectives between state departments of education and school systems; four-year institutions and two-year institutions; and colleges and secondary schools. (26 documents retrieved)

4U—Counseling for Drug Abuse
Techniques and school programs for education and prevention. (70 documents retrieved)

5U—Counseling for Achievement Motivation
Suggested techniques for use in school and at home to increase levels of motivation. (70 documents retrieved)

7U—Program Evaluation and Accountability
Methods of program evaluation and the extent to which programs and counselors themselves are effective in contributing to favorable student development. (75 documents retrieved)

8U—Parent Counseling
Ways in which the school can involve parents in the educational and social development of the child. (48 documents retrieved)

9U—Confidentiality
The ethics involved in student record-keeping and privileged information, together with recent legal decisions in this area affecting the counselor. (7 documents retrieved)

10U—Students as Resources
Different ways in which students can be employed as volunteers in the school and community. (35 documents retrieved)

11U—Counseling the Aging
Methods of viewing the aging, and the extent to which programs and counselors themselves are effective in contributing to the enrichment of the later years. (17 documents retrieved)

12U—Vocational Counseling of Disadvantaged Students
Guidance and counseling practices for particular use with minority and other disadvantaged elementary and secondary school students. (69 documents retrieved)

13U—Support Personnel
A focus on programs that have trained and utilized paraprofessionals (K-16) with a look at outcomes and potential adoptability. (41 documents retrieved)

14U—Tests and Testing Programs
A review of comprehensive testing programs (elementary, senior high school and college) with special emphasis on specific tests that the practicing counselor may want to utilize. (167 documents retrieved)

15U—Outreach Counseling
Covers different and creative approaches in counseling that go beyond traditional methods and take the counselor outside of the confines of his office. (36 documents retrieved)

16U—Group Guidance
Covers group counseling, group dynamics, types of groups, and how they function as well as training needed for working with groups. (58 documents retrieved)

Retrospective *Searchlights*, dealing with the same topics but covering the period November 1966 through June 1971, are also available. Ask for 1R, 2R, 3R ... through 12R; 6R, which is not available as an Update Search, is entitled: "Improving Counselor Public Image." These searches are also available at $1.00 each.

SEARCHLIGHT ORDER FORM

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Enclose payment with order. No cash please.

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Make checks payable to the University of Michigan. Return form to: Impact/Searchlight P.O. Box 835 Ann Arbor, MI 48107

Reviews

Career Guidance for a New Age
Edited by Henry Borow
Reviewed by Juliet V. Miller

Career guidance is in its 60th year. Historically the seeds that initiated and sustained this movement can be traced for several hundred years. The actual birth of vocational guidance, at the turn of this century, grew out of a climate of social change. NVGA's 60th anniversary publication, *Career Guidance for a New Age*, reconceptualizes career guidance in light of recent social and professional changes. Perhaps Blocher in his article, "Social Change and the Future of Vocational Guidance," asks the question the entire publication attempts to answer: "Will the epitaph of vocational guidance indeed be: born 1909, died 1980 of Future Shock?"

The nine articles contained in *Career Guidance for a New Age* are all intended to clarify the roots of vocational guidance and to provide a reconceptualization of the field vis-à-vis current social conditions. The historical emphasis helps to lend perspective to current career guidance efforts. Miller in his article, "Historical and Recent Perspectives on Work and Vocational Guidance," traces the roots of career guidance:

> Seldom if ever can any complex development in modern society be traced to a single source or chain of events ... Reed (1944) observed that apparently spontaneous happenings in the beginning of the movement were really symbols of change taking place in the established cultural pattern. Stephens (1970) writes: ... the guidance movement in American education was but one manifestation of the broader movement of progressive reform which occurred in this country in the late nineteenth and early twentieth centuries.

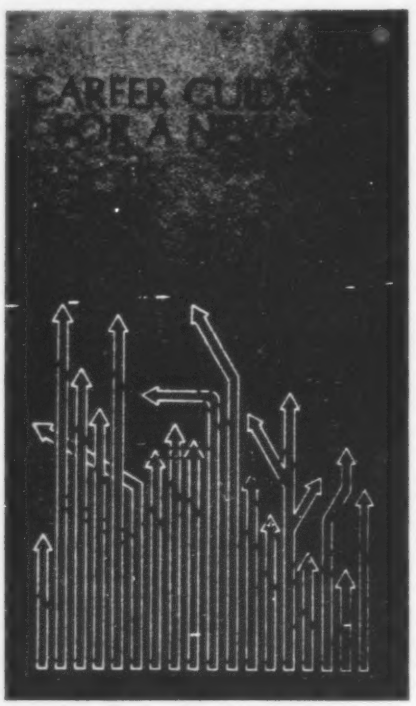
The foundations of career guidance lie in the reform that was evidenced during the Progressive era. Frank Parson's writing as early as 1894 suggested that:

> The training of a race horse and the care of sheep and chickens has been carried to the highest degree of perfection that intelligent planning can attain. But the education of a child, the choice of his employment are left very largely to the ancient haphazard plan—the struggle for existence, and the survival of the fittest.

The progressive movement was to result in social reforms which would broaden the base of democracy making participation in society available to greater numbers of people. Vocational guidance was a response to the need of individuals to develop skills that could help them exercise the new freedom of choice opening to them. Several writers in *Career Guidance for a New Age* review the various social changes that have occurred recently in American society and suggest new directions career guidance must take to help various groups utilize new opportunity.

Katz in his article, "The Name and Nature of Vocational Guidance," indicates that:

> The vocational guidance movement was fathered by economics mothered by ideologies, housed (at least part of the time) by education, and befriended by psychology.



As these fields have developed and changed, so has career guidance. Therefore, *Career Guidance for a New Age* attempts to trace current developments in the various disciplines that have contributed to career guidance and to reformulate career guidance practice in light of these changes. Hansen and Borow in their article, "Toward Effective Practice: Emerging Models and Programs," summarize the current emphases in career guidance. These are: (1) a shift in emphasis from the act of occupational choice to the process of career development including occupational awareness and a sense of planfulness; (2) focus on total life style rather than just job duties; (3) a strengthening of services provided to such populations as women and as the physically, emotionally, and intellectually handicapped; (4) the introduction of broad scale kindergarten through twelve schemes rather than just secondary school programs; and (5) emphasis on integrating career guidance into the total school curriculum.

A final emphasis of *Career Guidance for a New Age* is on new guidance technologies and the impact they will have on career guidance programs. Several writers provide an overview of such technologies as behavioral counseling, decision-making, training programs and computer assistance guidance systems, and discuss the possible application of these technologies in guidance. This emphasis is most helpful to anyone wishing to understand new developments in the field.

The collected articles presented in *Career Guidance for a New Age* seem to meet the goal stated by Borow in the preface: "The National Vocational Guidance Association ... has constantly sought to reinterpret the meaning of work adjustment in contemporary terms and to reassess its own mission accordingly in serving the cause of career guidance." This publication is an important attempt to keep career guidance a dynamic discipline. Wrenn in his article, "Epilogue: A Sense of Vocation," has summarized the challenge:

> Today—and the immediate tomorrow—are best seen as a completely new ball game. We may be held back rather than benefited by dwelling upon anything that vocational guidance was. Progress cannot be made by a strategy which attempts to adapt the old vocational guidance to today's information systems, computer and communications technology, and the best of today's counseling. It would be better to start with today's needs and create something to meet them. The result may be an entirely new use of the term vocational guidance.

Anyone who is committed to "starting with today's needs and creating something new," will find *Career Guidance for a New Age* essential reading.

Juliet V. Miller, Ph.D., a past president of the Michigan Vocational Guidance Assn., is currently Assistant Director, Measurements and Guidance Department, for the Oakland School System, Pontiac, Michigan.

What a strange pleasure there is sometimes in seeing what we expected, or hearing what we knew was a fact! The dream then seems really to hold together.

George Santayana
Tipperary (essay)

APGA/Impact To Team Again On Career Development Workshop

Ideas, resources and skill building will be the major focuses of the three-day, pre-APGA convention workshop, **Internal Compasses for Life/Career Development**, which emphasizes the development of "take-away" skills and resources and a "hands-on," action orientation that will help participants utilize their newly acquired skills in developing their own exemplary career development and career guidance programs.

Sponsored by APGA and *Impact*, in association with the ERIC Counseling and Personnel Services Information Center, this workshop is based on the successful June, 1973 Workshop on Career Development and Career Guidance. Garry R. Walz, Director of ERIC/CAPS, Past APGA President and Professor of Education at the University of Michigan, is the workshop director and major presenter. This year's workshop takes place April 6, 7 and 8 at the Monteleone Hotel in New Orleans. Registration is open to both APGA members ($75) and non-members ($100). The registration fee includes a large packet of resource materials.

Special workshop features include the following: analysis of exemplary life/career programs and practices for all ages in a multiplicity of settings; training in the adoption and use of outstanding programs and practices; access to a comprehensive "resource boutique" for reviewing and selecting materials relevant to particular needs; micro-career guidance approaches using videotape for instant feedback; direct experience and involvement with current games, simulation models and techniques; a hefty packet of readings, references, guides and other resource materials especially developed for workshop participants; individual consultation with career development specialists on programs and practices for elementary, secondary, community college, higher education, and community agencies; help in the preparation, adoption or adaptation and implementation of innovative life/career programs; interaction and sharing of experiences and resources with other participants at a "swapshop"; post-workshop communications linkage to other participants and to new resources and materials as they're developed; tie-in to future workshops and conferences of import.

Each of the workshop's three days will be devoted to one of the major thrusts identified:

New Ideas—Day 1

Creative innovations in the field

Emerging national programs and priorities

Exemplary programs, conceptual approaches, and delivery systems

Integration of the best ideas from research and the most effective career guidance programs

Assessing needs and establishing objectives for career development for all ages and specific populations (handicapped, minority groups, women, aged, imprisoned)

Resources—Day 2

Consumer review clinics of available commercial and non-commercial career guidance materials and practices

Analysis and training in the use of the six most outstanding career development resources

Work with the researchers and developers of outstanding career development programs and practices

Guidelines for the establishment of a career resources information center

Utilization of ERIC/CAPS' resources and those of related information systems

Skill Building and Program Design—Day 3

Micro-career guidance approach using video-tape for instant feedback on specialized behaviors and techniques

Specialized instruction in the adoption and use of top-rated career guidance resources, materials and practices

Consultation on the design and development of a program for use in one's local setting

Preview and actually use a wide variety of available resources and materials

Speakers and Consultants

Workshop consultants will not only present ideas, but will actively work with participants in using these ideas and resources to develop programs and practices for use in their home settings. Among the workshop staff will be:

John Holland—Career Development Researcher; Developer of the *Self-Directed Search* and *Vocational Preference Inventory*; Professor of Education, Johns Hopkins University.

Kenneth Hoyt—Developer and author of many career guidance publications; Past President of APGA; Professor of Education, University of Maryland.

Joseph Johnston—Developer of the College Career Development Program; Associate Director, Counseling Center, University of Missouri.

George Leonard—Director, Developmental Career Guidance Project; Professor of Education, Wayne State University

Carl McDaniels—Director, Graduate Studies and Research, College of Education, Virginia Polytechnical Institute and State University; President of NVGA.

Betty Blackford—Director, Northeast Oakland Vocational Education Center Guidance Program, Pontiac, Michigan.

Stuart Packard—Associate Director of Field Services for Career Education, Pontiac Schools, Pontiac, Michigan.

Impact will mail you further details and an order form for the pre-convention workshop, **Internal Compasses for Life/Career Development.**

Carkhuff Associates To Sponsor Human Technology, Achievement Sessions

The skills and training techniques that comprise the human technology developed by Robert R. Carkhuff and associates of Amherst, Massachusetts and Dallas, Texas, will be demonstrated during a three-day, pre-APGA convention workshop entitled, **A Human Technology for Human and Career Achievement.**

The event will be held April 5, 6 and 7 at International Hotel in New Orleans and is open to both APGA members ($75) and non-members ($100). The fee covers the costs of books.

No limit has been placed on registration—even so, Dr. Carkhuff, the convention's keynote speaker, promises one trainer for every 12 participants, all of whom will be required to practice in small groups the skills presented at large-group meetings.

Sessions will run from 9 a.m. to 5 p.m. with only one hour for lunch, a rigorous schedule for a pre-convention workshop; but one is in keeping with Dr. Carkhuff's guiding philosophical principles: The only meaning to life is growth; therefore, growth is worth any price—even work!"

The hard pace should also demonstrate why Carkhuff advocates physical fitness as essential to emotional and intellectual fitness and it will give those who are not familiar with Carkhuff and his associates a chance to see why they are often referred to as the Carkhuff football team—their physical development is such that even those who are not really big enough to play tackle for the Dallas Cowboys seem so.

In addition to Carkhuff (who still coaches sports), the team includes:

Theodore W. Friel—a former professional baseball pitcher who now specializes in decision-making skills in the Educational and Career Exploration System (ECES) he began developing while in the advanced systems division of IBM. Since he joined Carkhuff Associates in 1971, Dr. Friel has directed programs in manpower development and has created computer-based career education delivery systems and career skills training programs.

Bernard G. Berenson—co-author of "Beyond Counseling and Therapy" with Carkhuff and consultant to Carkhuff Associates on Technology Development.

Andrew H. Griffin—former pro-footballer with the Green Bay Packers who now directs the Center for Human Relations and Community Affairs, American International College, Springfield, Massachusetts.

Richard M. Pierce—director of Human Achievement Programs, Carkhuff Associates, and author with Carkhuff of the "Interpersonal Skills Training Workbook."

David H. Berenson—director of Educational Achievement Programs, Carkhuff Associates, and co-author with Carkhuff on the forthcoming "The Art of Teaching."

George Banks—director of the Human Relations Program, Southern University, Baton Rouge, Louisiana and co-author with Dr. Griffin the forthcoming book, "The Black Experience."

Jeanette Tamogini—Professor of Counselor Education, Rhode Island College, and co-author with Carkhuff of the video-tape series on "Helping Skills."

William Anthony—Professor of Rehabilitation Counseling, Boston University, and author of a forthcoming book on "Psychiatric Outcome."

Tom Collingwood—Psychologist, Dallas Police Department and author of a forthcoming text on "The Art of Being Physically Fit."

Training during the workshop will focus on the interpersonal skills covered in a revised edition of *The Art of Helping*, which sold 30,000 copies in its first printing. The new edition is part of the recently released *Life Skills Series*, which is distributed by ARSA and includes*The Art of Problem Solving* and *The Art of Program Development*.

Career development skills training and materials also will be offered during the workshop. This phase of the Human Technology began with a computer called ECES I, which was used by counselors trained in Carkhuff's Human Resource Development model.

Complementing this program are printed materials, including *The Art of Developing A Career*, a teachers' guide; *The Art of Developing A Career* for advanced students; *How Who Developed His Career* for intermediate students; and other materials geared for particular levels.

The career development skills sample kit including these books may be obtained from the Human Resource Development Press, Box 228, Amherst, MA 01002 for $25. The three books which comprise the *Life Skills Series* are available from either the HRD Press or the RRGA Press for $4.95 each.

To register for the workshop, write APGA. (Complete address listed below.)

Consulting Skills is Theme of Developmental Workshop

A third workshop will also precede the APGA Convention in New Orleans. This one, to be held April 6 and 7 at the Fairmont Hotel, is entitled, **Workshop Demonstrations, Pre-School through 12: Consulting Skills and Programs**, and will be directed by Roger Aubrey. Registration fee is $50.00 for APGA members and $65.00 for non-members.

The focus of this workshop is developmental (preschool through grade 12) and will emphasize the development of strategies for implementing a variety of new consultation methods and activities into an organized, integrated teamwork approach to counselor-consulting.

Workshop objectives have been identified as: 1) to demonstrate new diagnostic and group techniques as a more effective approach to consulting; 2) to emphasize the use of inter-active skills in collaboration with other school and community personnel; 3) to develop organizational and management skills in implementing these new methods into a systematic, on-going guidance program; and 4) to explore counselors' methods for adapting these action-oriented methods and consulting approaches to their own unique settings.

Through the use of media and a series of action-oriented group counseling activities, the workshop will provide counselors with a variety of new methods of consultation. The use of consultation through these techniques and materials will range from classroom to community. The counselor's willingness to "demonstrate" or to "go first" is viewed as an essential factor in establishing collegial relationships and open communication between all members of the educational environment: students, faculty, administration, parents, and paraprofessionals. Proposed activities will include:

Video-taped presentations of human development programs for pre-school through middle school children with teachers and entire classes

Overview of a pre-school program for parents of children from birth through school entry (nursery school or kindergarten)

Video-tape presentation of group counseling for parents and teachers of elementary children

Group problem solving and discussion skills for junior high school students through the use of humanistic education materials

Educational counseling and facilitating adult-teenager communication through the use of Sociodrama

Career and educational planning using School Scene Apperception photographs as vehicles for discussion

Review and use of a variety of materials both at the workshop and for reproduction and distribution in participants' own settings.

The workshop will be directed by Roger F. Aubrey, President of ACES and Director of Guidance and Health Education, Brookline Public Schools, Brookline, Mass. Other workshop leaders include:

Patricia Maslon—Professor of Human Development of Learning, Governors State University, Park Forrest South, Ill.

Julian Karvoski—Human Relations Counselor, New Canaan, Conn.

Robert Ferrari—Counselor, Brookline Public Schools, Brookline, Mass.

For further information on any of the above three workshops write: APGA Pre-Convention Workshops, American Personnel and Guidance Assn., 1607 New Hampshire Ave., N.W., Washington, DC 20009, Attention: Mrs. Ethel S. Bradford.

Bazaar

JOURNALS & NEWSLETTERS

(Tomorrw's World)
P.O. Box 68
M.I.T. Branch Station
Cambridge, MA 02139
6 issues/3 months $20
A semi-monthly newsletter for planners, investors, and educators interested in the world of the late 1970's, the 1980's. . .and beyond. Each issue features predictions, projections, and plans providing insights into the future. Free sample on request.

Cycles
TADS
University of North Carolina
625 W. Cameron Avenue
Chapel Hill, NC 27514
A bi-monthly newsletter of the First Chance network, which consists of preschool projects funded by the Handicapped Children's Early Education Act passed in 1968. This relatively young program is designed to develop and demonstrate effective approaches to assisting handicapped children during their early years and is structured so that other communities can replicate or adopt exemplary program components to meet their own needs. Write the above address for subscription information.

Sharing
Consortium of Early Childbearing and Childrearing
Suite 709, 1145 19th Street, N.W.
Washington, DC 20036
A newsletter which includes articles, abstracts, program descriptions, readings, etc. Available free, while supplies last, as are all other Consortium publications and materials.

Women's Studies
Gordon and Breach
440 Park Ave., South
New York, NY 10016
A new interdisciplinary journal. The first issue contained an article by the new president of Bennington and a "Review of Sexism in America Historical Writing."

Women and Work
United States Department of Labor. Office of Information, Publications and Reports.
Washington, DC 20210
First Issue, March, 1973
No charge
This newsletter includes articles on career focus, women and the law, publications, and information on the Women's Bureau.

Aging Magazine
Superintendent of Documents
US Government Printing Office, Washington, DC 20402
$4.50/year; 6 issues
A medium for sharing information among interested individuals, agencies, and organizations in the field of geriatrics, who are concerned with the welfare of the aged.

The Workshop
Committee of Community Schools
780 West End Avenue
N.Y. NY 10025
(212) 666-8664
Newsletter is outgrowth of CCS which explores ways in which public funds might be made available to community controlled, tuition free, alternative schools. A list of alternative schools in N.Y. state is also available.

Amorphia
P.O. Box 744
Mill Valley, CA 94941
Publishes a quarterly magazine dealing with drugs and drug education.

Sesame Street Magazine
North Road
Poughkeepsie, NY 12601
Monthly $3.50/year
Another outgrowth of the Seasame Street phenomenon.

BOOKS

The Art of Conjecture
Bertrand de Jouvenel
Basic, 1967, 307 pp.
Explores the psychology of thinking about the future.

The Center of the Cyclone
John C. Lilly
Julian Press, $6.95
Advice for explorers from an explorer of his own inner spaces. Description of various states of consciousness. Eclectic account of author's experiences involving drugs, therapy, esoteric training, etc.

Learning For Tomorrow (The Role Of The Future In Education)
Edited by Alvin Toffler
Random House Publishing Company
201 E. 50th Street
New York, N.Y. 10022
The author of "Future Shock" presents an anthology of articles on the ways in which the social sciences and humanities could deal with the idea of the future.

The Limits To Growth
Meadows, Donella; Meadows, Dennis; Randers, Jorgen; Behrens, William
Potomac/Universe 1972
A book that made headlines and created debates the world over. A team of MIT scientists, aided by a giant computer, predict a grim future for the world if present technological growth continues.

Serious Games
Clark C. Abt
Viking, 176 pp.
The art and science of games that simulate life—in industry, government, education, personal relations.

Career Guidance: A Handbook of Methods
Campbell, Walz, Miller and Kriger
Charles E. Merrill Publishing Company
1300 Alum Creek Drive
Columbus, OH 43216
This new book can offer you hundreds of ways to be a better counselor. It pinpoints the best current career guidance methods along with practical applications for schools and employment centers. The annotated bibliography provides 643 guidance methods along with a conceptual framework for selecting and implementing methods that meet specific guidance goals.

Emotional Common Sense: How to Avoid Self-Destructiveness
Rolland S. Parker, Ph.D.
Harper and Row, $6.95
Cover such topics as stress, guilt, anxiety, loneliness, anger, and sexual conflicts.

I. Q. in the Meritocracy
R. J. Hernstein
Atlantic-Little, Brown, $7.95
Psychology professor Herrnstein of Harvard found himself a storm center when his article, "I.Q.," appeared in Atlantic Monthly in September, 1971. This article expands his Atlantic Monthly essay by describing the attack on him by "egalitarian" or Leftist academics. Herrnstein then documents his controversial findings with a detailed study of the history and nature of the I.Q. concept.

After Forty: How Women Can Achieve Fulfillment
Sondra Gorney and Claire Cox
Dial, $7.95
The authors discuss nearly every imaginable difficulty facing a woman in her later years. Physical change, retirement, finances, sex, fashion, how to get a job and how to be a grandmother are some of the problems they treat.

Our Bodies, Ourselves: A Course by and for Women
Boston Women's Health Book Collective
Simon and Schuster, $8.95, paperback $2.95
A complete medical guide for, about, and by women, and a breakthough book of feminine consciousness. Each chapter—on nutrition, self defense, excercise, hormone therapy, venereal disaases, routine infections, sex, birth control—either has something new to say or offers a slightly different perspective on many of the things that trouble women.

Dick and Jane as Victims: Sex Stereotyping in Childrens' Readers
Women on Words and Images
Princeton, N.J. $1.50
Nice girls finish last and look on passively (with admiration) while boys rescue animals, play cowboy and have all the adventures. That's just one of the biased messages kids get from stories and illustrations in elementary school readers, according to this booklet. The authors, who analyzed 134 elementary school readers from 14 different publishers, recommend that interested groups urge publishers to provide material which reflects a sensitivity to the needs and rights of girls and boys without preference or bias.

Blueprint for a Brighter Child
Brandon Sparkman and Ann Carmichael
McGraw-Hill, $5.95
What the teacher-authors offer here is a short book that is based on their recent experience in a "unique" preschool program in Tuscumbia, Alabama. They give a wide variety of illustrations as to how parents can stimulate the emotional, mental and physical development of their baby, his sense awareness above all, and how through games and other means these processes can be linked with fun.

Beyond the Best Interests of the Child
Joseph Goldstein, Anna Freud, and Albert J. Solnit
Macmillan; October, 1973
$7.95 hardcover; $1.95 paperback
The time has come for "children's lib." Child custody laws are set up to protect "the best interests of the child," but in actual fact they more often serve the emotional needs and conveniences of adults. In this important book, two renowned psychologists and a noted legal authority propose revolutionary guidelines which would prevent needless emotional scars for thousands of children.

The Black Child: A Parents' Guide
Phyllis Harrison-Ross, M.D., & Barbara Wyden
Peter H. Wyden (McKay dist.), $7.95
A pioneering attempt to explore the problems of raising black children in our predominantly white society. This book documents effectively how parental prejudices regarding skin color are transmitted to children, creating fear, self-hate, and self-denial and conversely, through lively down-to-earth examples, makes clear how parents can instill a positive self image in a black child.

Young Till We Die
Drs. Doris and David Jonas
Coward, McCann & Geoghegan, $6.95
An important and timely book on a subject that affects everyone: retirement and aging. The authors examine the cultural and biological aspects of old age. They discuss the role of the elderly in human societies of the past; the importance of social function and individual status; various forms of depression in the elderly and the need for mental stimulation and a sense of purpose. The authors urge a massive nationwide program of education for retirement and suggest various work projects for the old, as well as special university classes.

We Mainline Dreams: The Odyssey House Story
Judianne Densen-Gerber
Doubleday, $9.95
Now one of this country's most successful drug rehabilitation programs with quarters in seven different states, Odyssey House is a "psychiatric therapeutic community." Dr. Densen-Gerber, one of Odyssey House's founders, tells its history in this compilation of case studies, autobiographies, letters, poems, trail records and distillations of therapy sessions.

REPORTS

Education Directory, 1972-73: Higher Education
This directory is a compilation of accredited institutions in the United States and its outlying areas that offer a 2-year program or more of college-level studies. 1973. 567 pp.
HE 5. 25:972-73/Higher S/N 1780-01110 $6.00.

Information Utilization By Vocational Educators
This summary report presents findings of four research studies and gives guidelines for planning and improving information dissemination systems and information utilization processes for vocational and technical education.
1973. 35pp. HE 18.11:90 S/N 1780-01135 75 cents.

A Case Study
Reports the findings of a number of successful Title 1 (Elementary and Secondary Education Act) opportunities for children in low-income areas. Concentrates on educational services and administrative design but also includes illustrations of good practices in providing supportive services and involving parents and other community members.
6D Spanish English Development Programs, Buffalo, New York, 1972. 28p.
HE 5.237:37096 S/N 1780-01005. 35 cents.
7D Continuous Progress Program,
Williamsburg County, South Carolina. 1972. 36 p. il.
HE 5.237:37099 S/N 1780-01033. 50 cents.

Essays on Career Education
This publication contains a compilation of essays by experts in the field of education offering an array of objective judgements on the condition of education in America. 1973.
265 pp. HE 5.2:C 18/4 S/N 1780-01147 $2.10.

National Assessment of Educational Progress, Report 9, Citizenship
National Assessment measures the important educational achievements of American children and young adults for purposes of improving education. This report on citizenship compares groups whose parents have had different amounts of education, color groups (black and non-black), and types of community. 1973. 255pp. il.
HE 5.2:As 7/rp.9 S/N 1780-01121 $2.85.

Guidelines for Identifying, Classifying and Serving the Disadvantaged and Handicapped Under the Vocational Education Amendment of 1968
This publication serves as a basis for establishing compatibility among the states in planning, implementing, and evaluating programs and services for persons who have special needs and in reporting enrollments and other pertinent information. 1973. 37pp.
HE 5.8:D 63 S/N 1780-01161 75 cents.

Mental Health at School
This reprint from the publication, *Today's Education*, discusses the role the classroom teacher can play in preventing emotional illness in children and in identifying early signs of its existence. 1973. 22pp. il.
HE 20.2402:Sch 6 S/N 1724-00281 30 cents.

Prep
(Putting Research into Educational Practice)
This series of reports, issued by the National Center for Educational Communication, is designed to bring the benefits of research in the field of education to the educator. Some of the recent reports are listed below.
8D Improving Teaching Effectiveness, Prep Report No. 25. 1972. 24p.
HE 5.89:25 S/N 1780-01087. 35 cents.
9D New Products in Education, Prep Report No. 29. 1972. 31 p.
HE 5.89:29 S/N 1780-01089. 45 cents.
10D Teaching Resources for Low Achieving Mathematics Classes, Prep Report No. 30. 1972. 34 p.
HE 5.89:30 S/N 1780-01090. 45 cents.
11D Early Childhood Education, Prep Report No. 37. 1972. 31 p.
HE 5.89:37 S/N 1780-01080 60 cents.

Perspective of Adult Education in the United States and a Projection for the Future
Report for the third International Conference on Adult Education, sponsored by the United Nations Educational, Scientific and Cultural Organization, Tokyo, Japan, 1972. 65pp. il.
HE 5.213:13042 S/N 1780-01025 35 cents.

Beautiful Junk
The suggestions presented in this booklet will not only give a boost to any school budget, but will also stimulate creativity in the first school experiences. It contains a wealth of ideas for making something from waste material and includes a list of sources for obtaining the material. 1969. 12pp. il.
HE 21.202:J 96 S/N 1972-00004 40 cents.

Order the above documents from
Public Documents Distribution Center
5801 Tabor Avenue
Philadelphia, PA. 19120
(make checks payable to Supt. of Documents)

Counselor Ideas in Action
Arizona Department of Education
Phoenix, AZ
An ESEA Title III project report containing descriptions of various guidance and counseling programs operating in Arizona and some ideas from other [illegible] ED 070 988
See EDRS Ordering Instructions

RESOURCES

Education for Parenthood
W. Stanley Kruger
Education for Parenthood Project, US Office of Education
400 Maryland Ave., S.W.
Washington, DC 20202
A federal program to help teenagers learn about children and how to care for them. The object of the program is to prepare young people for rearing their own families in the years ahead and to encourage them to pursue careers involving work with children. Classroom instruction in child development is combined with practical experience in working with young children in settings such as Head Start programs, day care facilities and primary grades.

The Propaganda Game
Wff'n Proof
Box 71, New Haven, CT 06501
$6 plus 50 cents postage and handling
The game teaches players to recognize techniques of persuasion and verbal manipulation. All the categories easily fit within the concerns of the English or media class. The game is simple to learn and play and often produces heated discussion where involved students are really learning.

Pupil Personnel Services: A Position Statement
This position statement sets forth the purposes and scope of pupil personnel services, desirable qualifications of pupil personnel administrators, and recommended policies for pupil personnel administration.

Pupil Personnel Services: Guidelines for Selection, Training, and Use of Paraprofessionals
This publication sets forth suggestions for use of paraprofessionals in pupil personnel services and guidelines for their selection and training.

Order the Above Two Resources from
National Association of Pupil Personnel Administrators, Publication Distribution
c.o Princeton Regional Schools
P.O. Box 711
Princeton, NJ 08540
Single copies $1.00; reduced rates available for groups.

Leadership Training Workshops
College Entrance Examination Board
888 Seventh Avenue
New York, N.Y. 10019
College Board is establishing a series of training workshops around the country to prepare new leaders to use decision-making curriculum in their schools or groups or to sharpen the skills of experienced leaders. The workshops will include discussions of the concept of decision-making, group leadership techniques, decision-making materials and leader's guide, and procedures for teaching. For information about the leadership training workshops write to Mr. Gordon Miller at the above address, or to Mr. H. B. Gelatt, College Board, 800 Welch Road, Palo Alto, California 94304.

Banned Products List
Consumer Information
Public Documents Distribution Center
Pueblo, CO 81009
List of toys and other products banned by the federal government. 1973. #030A. Free.

Alternative Press Center
Bag Service
2500 Postal Station E
Toronto, Ontario, Canada
(H16) 921-9588
Publishes a quarterly subject index to articles in over 135 alternative and underground magazines and newspapers. Has a reprint service and a newsletter. $6 (individuals), $10 (alternative groups), $15 (high school libraries), $30 (other libraries and educational organizations.)

MISCELLANEOUS

Games to Grow On (birth to age 6)
Grolier Enterprises, Inc.
Sherman Turnpike
Danbury, CT 06816
$1.95/month
A preschool-level mail order learning program.

Hellotrope
A large, successful free university in San Francisco with one branch in Los Angeles and others in the planning stages. One of the founders, William Kitchen, calls it a "pleasant and still educational means" of using the free time unleashed by shortened work weeks. Tuition is $10—20 per course, and instructors are from widely scattered areas of knowledge. Open twelve months a year, courses range from sailing to Gurdjieffian philosophy to guitar making. "The idea" says Kitchen, "is to rebuild the knowledge industry."

EDRS Ordering Instructions

References in this publication that have an ED number may be ordered from the ERIC Document Reproduction Service (EDRS), P.O. Drawer O, Bethesda, Maryland 20014. To order any of the ED materials, the following information must be furnished: The ED number of the document; the type of reproduction desired—photo (hard) copy (HC) or microfiche (MF); the number of copies being ordered. All orders must be in writing. Payment must accompany orders under $10.00. Residents of Illinois and Maryland should pay the appropriate sales tax or include a tax exemption certificate.

The Legal Rights of Secondary School Children

by Paul Piersma. 51 pp. $3.00

Written by the associate director of the National Juvenile Law Center, this monograph takes you through the legal precedents and actual cases which have led to revisions in the treatment of juveniles charged with acts of delinquency or violation of school laws.

A comprehensive listing of legal precedents, books, journal articles and special reports relevant to the topic are appended to the text.

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It is not at all unusual for ERIC Centers to receive mail and/or inquiries addressed to Mr. Eric Clearinghouse. We chuckle a bit, but realize that, to many, Mr. Clearinghouse is a person. An introduction seems in order!

ERIC is an acronym for Educational Resources Information Center, a nationwide series of clearinghouses funded through the National Institute of Education.* Each center focuses on a specific aspect of educational information and seeks out, reviews, abstracts and inputs unpublished literature within its scope into a central microfiche system. Each month selections are announced in the ERIC publication, *Research in Education (RIE)*. The entire document appears on microfiche, the full collection of which is housed in each ERIC clearinghouse as well as many university libraries, research facilities and community resource centers which have purchased the collection and make it available to the public. The system also covers articles from over 200 journals which are indexed and annotated for announcement each month in a companion ERIC publication, *Current Index to Journals in Education (CIJE)*. Journal articles are not available on microfiche.

Now that you've been formally introduced to Mr. ERIC Clearinghouse, we hope you'll stop by next time you see our booth at a meeting or convention, or visit or write one of the ERIC Clearinghouses located in your region.

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